

THE MEDICAL AND SURGICAL REPORTER.

No. 1958.

SEPTEMBER 8, 1894.

VOL. LXXI—No. 10

ORIGINAL ARTICLES.

CHRISTIAN SCIENCE AND THE MEDICAL PROFESSION AGAIN.

F. C. HERR, M. D., OTTAWA, KANSAS.

"When the mind is once pleased with certain things it draws all others to consent and go along with them, and though the power and number of instances that make for the contrary are greater yet it either attends not to them, it despises them or else removes them by a distinction with a strong and pernicious prejudice to maintain to the authority of the first choice inviolated. And hence in most cases of superstition as of Astrology, Dreams, Orneus, Judgments, etc., those who find pleasure in such kind of varieties always observe where the event answers but slight and pass by the instances where it fails, which are much the more numerous."—Bacon's Novum Organum.

"Christian Science and Its Relation to the Medical Profession," is the subject of a paper read before the Pennsylvania State Medical Society, and published in THE MEDICAL AND SURGICAL REPORTER for August 11th. I am glad Dr. Longsdorf read the paper, and gladder still that it was published in THE REPORTER. Her warning that something must be done with this monster of scientific and religious distortion is timely. Her paper will have served a good purpose if it does nothing more than stimulate thought and investigation into the audacious pretenses of this pernicious and fulsome doctrine.

In this paper I shall endeavor, as far as possible, to take the subject of christian science out of the realm of occult things and bring it within the range of intelligent thought and comprehension.

Christian Science is not a new thing—it is simply a new name for a very old thing. In its phenomena (by which I mean its reputed and actual triumphs in the healing art) it can be traced back to the twilight of fable, and even beyond that dimly remote time, until its argument becomes lost in its very antiquity. But the name is not only new, but seductive and delusive, completely adapted to the highest

ends of what may justifiably be characterized as the Black Art. I am well aware that such an imputation is resented by the defenders of this new heresy, but its *modus operandi* to them is not more intelligible than was the medical philosophy of the Rosicrucian physicians who applied the salve to the weapon instead of the wound itself.

The "Dreamers of the Gods" of ages ago, and the "Masters or Guardians of Divine Thought" of the early northern Indians, had as much of an intelligent basis as has our modern "Christian Science." In those distant days such strangely absurd beliefs were not explained and defended by the same dexterous use of language that is now so noticeable. Mrs. Eddy's work is nothing but a lofty pretense at a philosophic exposition of her own introspective mental states, and an attempt to apply her deductions to the universal mind. She has fallen into the same egregious error that has characterized the intellectual flights of the mediæval sophists, who wrote volumes filled with smooth flowing sentences, but in whose volumes a Philadelphia lawyer could not find any trace of reason or sense. With unique skill and consummate fineness, Mrs. Eddy

plays upon the words fear, dread, sin, sickness, death, spirit, God, etc., but with all her ingenuity and cleverness she fails to break the bolts that bar the realm of mind and bring it within the pale of experimental research. But she is here. Her works are among us. Her votaries are up and doing, zealous and enthusiastic, preaching and spreading the new science. Dr. Longsdorf says "some form of definite action should be taken, whereby we could cope successfully and with dignity with what must otherwise be a dangerous foe."

Against all the audacity and impious assumption of these shameless pretenders we must oppose something. What shall it be? I submit it can be only *light! knowledge! truth! science!*

It will not do for medical men to stand aghast at the achievements of these montebanks. It will not retard their cause, nor accelerate ours, to characterize them as imposters and their work as an imposition. We must proceed along other lines. We must undeceive the people by demonstrating to them that christian scientists possess no power and no knowledge that medical men do not possess. Where is the enlightened physician who cannot cure disease, not all disease, by purely *mental therapeutics*? Here is the "sin" of the medical profession. From time without memory these agencies have been used, sometimes with marvelous effect, and yet doctors condemn, and make strenuous effort to cast upon them disrepute. A doctor should never lift his hat in the presence of such a distorted monster as christian science. Every man in the medical profession (and woman too) can do just what these christian scientists can do. He can do more, for his diagnostic skill endows him with a nicety of discrimination in selecting subjects that the ordinary christian scientist cannot have.

I submit that in our medical schools and medical text-books insufficient attention is given to the *remedia psychia* of Pereira. I submit further that mental influences as a factor in the causation of disease do not receive a tithe of the consideration to which their importance entitles them.

The poet Churchill wrote:—

"The surest road to health, say what they will,
"Is never to suppose we shall be ill;
"Most of those evils we poor mortals know
"From doctors and imagination flow."

This picture of the English poet is over-

drawn, and yet every intelligent physician knows that there is more truth than poetry in the verse. Most readers are familiar with the incident which followed a discussion between Erasmus and Sir Thomas Moore on the subject of transubstantiation. Sir Thomas vainly endeavored to convince his friend of the real presence, and assured him that if he would believe he would be convinced beyond a doubt. Upon leaving Moore's house he borrowed his pony, and did not return it, but sent the following lines:—

"Remember you told me
"Believe and you'll see;
"Believe 'tis a body
"And a body 'twill be.
"So should you tire walking
"This hot summer tide,
"Believe your staff's Dobbin
"And straightway you'll ride."

The celebrated Dr. Rush once wrote, "I have frequently prescribed remedies of doubtful efficacy in the critical stage of acute disease, but never till I had worked up my patients with a confidence bordering upon certainty of their probably good effects. The success of this measure has much oftener answered than disappointed my expectations."

In the fifth edition of Flint's Practice of Medicine, page 116, these observations are made: "In the management of cases of disease, mental influences are often of not a little importance. Hopefulness and a strong will are curative agencies which are frequently powerful auxiliaries to remedial remedies, and they are sometimes more potent than drugs. Certain disorders may be produced and prolonged indefinitely by mental causes. A cheerful mien and manners calculated to inspire confidence are to be cultivated as highly useful professional attainments." Dr. Flint in the closing years of his eminently useful life had a keen appreciation of the value of psychical agency in the treatment of disease.

I am quite sure that Dr. Longsdorf makes a grave error when she says that "it (christian science) must not be confounded with hypnotism, animal magnetism, faith or mind cure, spiritualism, clairvoyant or other trance, or the old-time powwowing process." If christian science is not these things we have abundant reason for alarm. We may well then cry out "What shall we do to be saved?" But it is the same old imposter in masquerade dress,

and with an extraordinary adaptation of means to ends, the garb distorts the vision of the subject so that things are not what they seem. The history of christian science, so far, is almost a counterpart of the early history of mesmerism. It is amazing that a learned profession, like medicine, should look with any degree of wonder upon the manifestations of an art that has grown musty with age, and that scientific bodies, time and again, have investigated with always the same result.

The West has suffered from the infection of the christian science craze as it has from chinch bugs and grasshoppers. A few years ago medical men found their paths crossed at almost every turn by this bold pretender. It is not so now, though the creature still moves among us, but with much less of its former strut and bravado.

I remember the heyday of christian science in this community. I recall the case of a young man in whom an empyemic abscess had made a spontaneous opening through the chest wall, and who was advised by the writer to have an operation done as the only means of saving life. Within twenty-four hours a christian scientist intruded her presence upon the unfortunate young man, and, standing in full view of copious issues of pus from the opening in the chest wall with each respiratory effort, assured the poor victim that "nothing ailed him," that "disease was a myth," that he should "go and sin no more by employing a doctor." He went in less than a week. This case did much to place christian science under ban in this community.

This case is illustrative of the point I wish to emphasize, namely, that the good things in christian science, the *remedia psychica* of Pereira, the *mental influence* of Flint, the *psycho-therapeutics* of Tuke, cannot be ignored by the physician who aspires to the fullest measure of success in his profession. Unlike the ignorant christian science pretender, he has the power of discrimination between the cases that can be cured by *psycho-therapeutics*, and those that imperatively need the assistance of art, or the *remedia physica*.

I submit that the enlightened medical man should seldom fail in the successful use of psychical agency in the treatment of disease. This success or failure, however, will turn upon his discriminating judg-

ment in the selection of cases. The case of empyemic abscess just cited is in point, and I may be pardoned citing another case equally in point, though at the other extreme of the pathological state. The patient was a maiden lady, twenty-eight years of age. For eight years she had been an invalid confined to bed. She employed many doctors and had been treated for many maladies, among them uterine displacement, ovaritis, cystitis, nymphomania, masturbation, and, as a *dernier resort*, she had been advised to contract marriage. A very careful examination of this case disclosed the astonishing fact that no organic disease of any moment existed, and I am almost incredulous myself when I recall the fact that a single dose of *psychic* medicine restored the eight-year invalid to health and usefulness. This was a case in which all the drugs in the materia medica would have availed nothing, and one, too, in which christian science only needed the opportunity to achieve a brilliant triumph.

The successes of christian science are no credit to that craft, but they are a distinct reflection upon and discredit to the medical profession. I come back then to the affirmation that enlightened medical men can do all and vastly more than these christian science pretenders can do, provided they use the gifts God has given them, and the means science has furnished them for intelligent discrimination and judicious enlightened treatment.

To scoff at the potency of christian science (?) or *psycho-therapeutics*, because the influence is subtle, unseen and unfelt, is not worthy a philosophic mind. Who would scoff at the dire potency of a drop of hydrocyanic acid because he does not understand its *modus operandi*? And is the one less mysterious than the other? Who can explain either? Both are verities, and in the never ceasing onward march of science both may some day be made clear to our comprehension.

I have already extended this paper beyond the limits prescribed and close with the observation that not a single result of christian science in its relation to the cure, or modification of disease, has any rational explanation outside the pale of *psycho-therapeutics*. The "divine mind" of the christian scientist is a dream, a chimera, a hallucination, precisely as were the "Masters of the Divine Thought" of the early northern Indians.

TREATMENT OF PNEUMONIA.*

W. C. HUMPHRIES, M. D., ACWORTH, GA.

In presenting this article on the treatment of pneumonia, I intend only to give a brief *résumé* of the line of treatment I have found most successful, and will confine myself mostly to the acute lobar variety.

I live and practice in that portion of the state noted for its salubrious climate, pure water and its being as a rule free from malaria and other morbid emanations with which our friends farther south have to contend. The majority of cases with which we come in contact assume from the beginning the athenic or high grade type and require active or depleting measures. If called to treat the patient in the first stage of the disease I resort to moderately active catharsis and an agent that will arouse the dormant secretions and assist nature to eliminate from the system the effete products produced by the disease.

For this purpose I find no better remedy than calomel, not only because it meets the indications mentioned above, but also on account of its superior antiphlogistic powers, its defibrinating the blood, its antiseptic properties, etc. I usually prescribe from six to ten grains for an adult, in combination with Dover's powders or some preparation of opium and bismuth subnitrate. I generally compound my own prescriptions, and as a rule divide this into three or four powders, and direct that a powder be given every two hours, best in capsules. If a patient can not swallow the capsules, I mix the powder in a teaspoon with a small amount of sugar or syrup, to which is added water, a sufficient quantity for dilution. After an interval of a few hours, I direct this to be followed with a brisk saline cathartic which empties the alimentary canal and in the majority of cases reduces the fever, lessens the pain, mitigates the excessive amount of congestion in the lung, and adds in many ways to the welfare and comfort of my patient. This prescription, perhaps, is a very old one, yet it is surprising to see how potent it is, in many cases rendering further medication almost unnecessary.

* Read before the Georgia State Medical Association, April, 1894.

My next effort is directed to reducing the force and frequency of the heart's action, which in most cases of this type is very strong and rapid. The blood vessels in the inflamed lungs are struttled with blood, the lung tissue is turgid and filled with the products of inflammation, causing pain, more or less excessive, and dyspnoea in proportion to the amount of lung tissue involved. The rational treatment, it seems to me, is to reduce the force and frequency of the heart's action. For this purpose I have tried several remedies, such as aconite, gelsemium, the coal tar derivatives, etc., but none of them have given so great satisfaction or such uniform results in my hands as *veratrum viride*. I use this oftener than any other heart sedative in this disease and it seldom fails me. I do not give it to such an extent as to produce nausea, but in small and often repeated doses. I find that three minims given every three hours will have as good effect as larger doses, and is not so apt to produce a disturbance of the digestive organs.

With *veratrum* I combine what I consider one of the sheet-anchors in the treatment of this disease, namely, turpentine in the form of an emulsion. In my opinion, there is not a remedy in our pharmacopœia so potent or productive of good results in this or the vast majority of diseases with which we come in contact, as turpentine. Being a product of our own state, it is plentiful and easily accessible to all, yet it is surprising to see how reluctantly some physicians use it, and what little importance they attach to it. I use it freely, both internally and externally, and find it especially useful in those conditions where the tongue has a tendency to become dry and red, and the force of the pulse begins to show *adynamia*. In small doses it prevents gastric and intestinal irritation, assists in keeping the secretions aroused, aids the emunctories of the body, acts as an astringent on the arterioles of the inflamed lung, and soothes the inflamed mucous membrane of the bronchial tubes, assisting nature to throw off the collection of mucus from them.

With *veratrum* and turpentine I pre-

scribe various expectorant mixtures, such as squills, wild cherry, elixir pinus compositus, usually some preparation of opium, etc., varying them from time to time as the symptoms and progress of the disease demand. If the bowels become constipated, a mild purgative should be given occasionally to keep them open, or what, perhaps, is better, repeat the powders mentioned above, especially if the tongue is coated and the cough is tight.

In regard to the use of the coal-tar derivatives which have recently come into vogue, my experience has been rather extensive, and in some cases I prescribe them with marked benefit, while in others with not so much success. In cases complicated with violent headache, especially if neuralgic in character, and pains in the back and extremities, they often act like a charm. In some cases I get a reduction of temperature and free diaphoresis with them; in others I do not. I consider them splendid adjuvants in the treatment of this disease. Of the various preparations I have tried, I have always gained better results from the use of acetanilid.

I will refer briefly to external applications. I have used various forms of liniment containing turpentine, and the one I consider the best is the old-fashioned volatile liniment, composed of equal parts of olive oil, turpentine, and aqua ammonia. Other applications, such as mustard, spongiopilin, hot poultices are very useful and should not be omitted. Of all the external applications I have used so far in the treatment of the sthenic type of this disease, I have found none that gave me so great satisfaction as the application of a large sized blister, and I think the sooner it is applied the better it is for our patient. I am aware that there is a great diversity of opinion on this subject in the profession, and it has been discussed time and again, but a recurrence to it will not be amiss, for it is a subject that demands the attention and earnest investigation of every thinking practitioner.

The present status of the practice of medicine is due to the wide experience and investigation of men who have devoted their lives to the profession and have spent many years in endeavoring to eliminate the wrong and establish the right. To the collation of the experience of such men our profession owes the rapid progress it has made in the last few years. These are

the guide-boards that must point us younger members to the road that will ultimately lead us to success. Excuse this slight digression, but I find a tendency with some of our younger practitioners to wander off into theories that have not been sufficiently tried or proven and exclude the bright gems of thought that have been handed to us from the store-house of ripe experience.

At the meeting of the Association in Columbus, the subject of blisters was discussed *pro* and *con* with a great deal of fervor, and especially by one whom we all love and revere for his ripe experience and profound medical knowledge. We know him to be a physician of rare ability and one on whom we can all rely. During the discussion on this subject he said: "If you wish to do me honor when I am dead, say to the coming generations and inscribe on my tombstone, 'Dr. Griggs used to blister in pneumonia.' I am willing to stand the test of time on it until Gabriel blows his horn."

In this same discussion our lamented Dr. R. O. Engram, in answer to the question why he blistered, said: "I blister because it relieves pain, and my experience has been that patients do better with blistering than without it." Several of the older members entered upon this discussion and all seemed to be united upon one thing; to blister, blister well, and repeat if necessary.

I am associated with my uncle, Dr. J. R. Humphries, who has practiced medicine for over thirty years and his advice to me has always been to use blisters in all stages of the disease, the earlier the better, and to use them freely.

I refer to these men not only because of their long and varied experience as physicians, but because they are our next door neighbors and better understand the diseases we treat than those who practice in a different latitude and are not so familiar with them. My own experience with blisters has been very satisfactory, and I have yet to see a case where I used them and regretted it. Of course, they are to be used circumspectly in the very young or very old.

In the second stage of the disease the foregoing plan of treatment is generally carried out, making such additions and changes as necessary. I find it sometimes necessary to commence with some prepar-

ation of ammonia, such as carbonate, which I find to be the best, and also to add alcoholic stimulants if the vital forces show a tendency to weaken.

In the third stage or stage of resolution, the treatment should be supportive, and tonics, reconstituents, etc., should be given according to circumstances and the demands of the system. In those cases that assume the low grade or asthenic form of the disease from the beginning, we must be careful not to carry our depleting measures too far, and to commence our supportive treatment early in the dis-

ease. In these cases blisters should be used circumspectly.

In the treatment of pneumonia, as in all diseases which afflict humanity, the physician should not forget the *vis medicatrix naturæ*, and that over-medication in many instances does more harm and retards the patient's recovery longer than would no medicine at all. He should be ever on his guard, willing to accept that which his own experience and that of others teach him is right, and reject that which is wrong, remembering that good common sense and sound judgment are the essentials necessary for success.

THE CONTAGIOUSNESS OF DIPHTHERIA.*

JOHN R. HAMILTON, M. D., PORT DOVER, ONT.

Two years ago, when reading the reports of this association, I was very much interested in a paper by Dr. Wilson, on cases in practice wherein diphtheria seemed to be carried by a third party, and which evoked much discussion among the members at the time; the majority, I have no doubt, still clinging to the belief that the disease is not communicated in that way. And in this belief we have nearly all rested, although we admitted at all times its epidemic nature, and the theory of direct contagion is, we all know to our sorrow, only too well founded. The untimely deaths of many young physicians, estimable nurses and loving mothers, caused by coming in too close contact with the poison-laden breath of the dying child, attest too clearly this fact. But while we admitted the theory of direct contagion in this disease, I think the majority of medical men have been unanimous, or almost so, in thinking that when asked by friends if the disease was transmitted in the manner that bacteria of other zymotic diseases are transmitted, they felt justified in giving an adverse opinion.

And why should we not cling to this belief when the opinion is endorsed by men of large experience. Squire, of London, says: "I know of no instance of the disease being carried from one house to another by the passage to and fro of those who were themselves unaffected." Breton-

neau's theory of direct contagion, and Trousseau's inoculation experiments give nothing to medical literature to warrant belief in the disease being propagated by a third party. Now, we have had many men of large experience to contribute their opinions on diphtheria, one of the longest known and most dreaded of all diseases, its causes, its many and varied types, its paralysis and other sequelæ, its multitudinous therapeutics, many of them very widely different. One author in England, for example, in giving the differential points between scarlet fever and diphtheria, says the latter is found more frequently in rarified atmospheres, in the sandy hills, an Alpine region in fact, whereas we who have practiced for years in the low-lying districts of this Province know the converse to be the fact, and that the drainage of our loamy soils has had effect in extinguishing the disease.

A short time previous to reading Dr. Wilson's paper in February, 1892, I was called to attend a family in one of the townships, in which a little boy of seven years was prostrated with this disease; afterwards one of the young women of the family was taken with it. The little boy had the asthenic form followed by paralysis to which he succumbed. The young woman recovered. During the time of their illness a relative, the mother of a large family, visited them, remained only a day and returned to her home nine miles distant. Four or five days after-

* Read before the Ontario Medical Association, June, 1894.

wards I was called to attend two of her children, one of whom had already hemorrhage from the throat and nose, and in a few days her whole family of children and the servant girl contracted the disease. There was no diphtheria in the neighborhood of this family either before or after this event, neither had the mother any symptom of the disease.

This case was so striking that I have been watching for corroborative evidence as to this method of propagation. In this country, so far, I only find in addition to Dr. Wilson's testimony, that of the Medical Health Officer for Toronto, for 1892. He says, in an essay before the Provincial Board of Health: "As an example, I may state that an infant living in one of the suburbs of this city was sent away from home where the disease existed for fear of contagion. The baby was successively sent to three families living in remote parts of the city. The baby took no sickness, but diphtheria occurred in all the three houses, two of the infected children dying."

Any contribution to the knowledge we already possess of a disease which, during the past few decades, has done more than any other incidental to childhood to prevent the increase of population, must be welcomed by all workers in the cause of science, as we have yet much to learn as to the causes which may lead to an outbreak of this or any other zymotic disease. After going through a labyrinth of opinions we are glad to reach the vantage ground of a *specific* cause, which we are now supposed to have in the bacillus first discovered by Klebs and afterwards largely experimented with by Loeffler. This is now the generally accepted cause of the disease, as the cultures of these bacilli produced the fever and depression when injected into the circulation of the rabbit, and also the paralysis which we know to be a common sequel of this disease due, no doubt, to the rapid degeneration of the nerve cell or, as Kauffman asserts, to a toxic neuritis. This bacillus, we are given to learn, produces in the tender epithelial mucous membrane of the fauces a ferment which, when absorbed, forms albuminoids by digesting the proteids, thus acting, as do other pathogenic microbes, in producing or rather manufacturing a chemical poison.

The question we, as practical men, appear to have yet to learn is, Does the

bacillus of Klebs act at all in such manner as the bacteria of other zymotic diseases, as scarlet fever, small-pox or measles? Will the physician use the same caution when attending diphtheria that he would if he encountered a case of puerperal septicæmia? And does he do his whole duty if he neglects to warn visitors of the danger of contagion by conveying the disease to others unwittingly?

Treatment of Whooping Cough.

Dr. Variol recommends in the treatment of this disease the following formula, of which a dose should be given in the morning, afternoon, and evening in a little sweetened milk:

R Potassii Bromidi	Sil.
Tinctura Valerianæ.....	Sil.
Aquæ.....	Sixss. Misce.

To infants, three teaspoonfuls; to children of from two to five years, three dessert-spoonfuls; and to children of from five to ten years, three tablespoonfuls. An hour afterwards he gives the same quantity of the syrup of turpentine. This treatment combines the action of the balsams on bronchial secretion by the turpentine, and of the antispasmodics by the bromide of potassium and valerian. When the *rdles* in the lungs are general, he administers powdered ipecacuanha in doses of seven to fifteen grains in the morning to cause expectoration of bronchial mucus. He advises that, where possible, children should live in the open air. To avoid serious broncho-pulmonary trouble in winter, change of climate ought to be secured. They ought to be fed frequently, but with small quantities, rich in albuminoids and easily assimilated (eggs, meat-juice, raw meat). Tonic treatment ought to be conjoined, such as the vinum quiniæ, or the syrup of the lactophosphate of lime.—*Lyon Medical*.

Cancer of the Ovary in a Child.

—Gussenbauer (*Wiener Med. Wochenschr*, No. 17, 1894) operated last year on a little girl, aged 8 years. A tumor, double the size of a man's fist, occupied the right half of the abdomen, and had been diagnosed as a sarcoma or teratoma. It proved to be a carcinoma, and was successfully removed. Half a year after the operation the patient was in good health, and there was no sign of recurrence.

COMMUNICATIONS.

PULSATIONS OF THE AORTA IN THE EPIGASTRIUM OF
NERVOUS ORIGIN.*

PROF. POTAIN, PARIS, FRANCE.

We have in the ward Piorry, a female patient who offers a complex picture of symptoms. Profoundly anemic, suffering some time from neurasthenic symptoms, the least work exhausts her, she has points sensitive to pressure in the facial nerves, and the last dorsal and the first two lumbar vertebræ are sensitive to pressure. She does not experience a sensation of weight on the vertex, but suffers from orbital neuralgia. Her digestion is faulty, she has flatulent dyspepsia, pseudo-membranous enteritis, with constipation and a progressive exhaustion of her whole system. Her abdominal organs are movable, especially her right kidney, which descends to the upper crest of the iliac fossa.

But that which most attracts one's attention is a pulsation in her epigastrium, which is very troublesome, and especially so at night, when it robs her of her sleep; it is so violent as to lift one's hand if laid upon her epigastrium. On auscultation, a pronounced diastolic murmur is to be heard. In spite of this her heart is normal, pulsation in the crural vessels is synchronous with that of the heart. A diagnosis of aneurism is not to be made as would have been done in times past, simply because this pulsation and murmur of the abdominal aorta were audible. Neither do I wish to deny that diagnosis of the aneurism of the abdominal portion of the aorta is difficult, particularly when it is situated in the upper portion of that cavity. Stokes has reported a case of a lawyer who suffered from atrocious pains in the epigastrium, and who not only consulted a number of eminent English physicians, but also Andral, in France, who all declared that he was a sufferer from dyspepsia. One day his aortic aneurism burst and he died suddenly.

Aneurism of the aorta was suspected in

* A clinical lecture delivered at the Charité Hospital, Paris.—Translated from *La Gazzetta degli Ospitali*, No. 79, 1894, by F. H. Pritchard, M. D.

our case, and search was made for it, for in actual aneurism there are present those characteristic signs, dorsal and epigastric pains, and especially in the lumbar region, which are often terrific and of great extent. They come in crises and cease completely in the intervals. They are aggravated by movement, walking about and pressure. Besides there is dysphagia, dyspepsia and vomiting. A second characteristic series of symptoms is furnished by the abdominal pulsations, but to diagnose an aneurism one should not only bear in mind the intensity of these pulsations for there are aneurisms which are accompanied by very slight pulsation. Thirdly, there is to be heard a murmur which is mostly single and sometimes double. In our patient we actually meet with this triple series of symptoms—pains, pulsations and murmur. But, if we examine these carefully, we shall see that they differ from those associated with aneurism.

The murmur is intense, but it is an artificial murmur produced by pressure exercised by the stethoscope which, partially occluding the artery for the time being, causes the blood to pass through the narrowed lumen, in vibration, and produces a murmur. If you apply your ear directly to the epigastrium you will not hear this souffle. If, at the same time that you listen with the stethoscope, you control the pulse in the femoral arteries, you will remark that there the pulse-wave becomes less and less, to disappear, finally, when the murmur is greatest by pressure of the stethoscope; easily explained, for the greater difficulty the blood current has to encounter in the aorta, the greater the pressure behind. Let us examine the epigastric pulsations. It is known that these may arise from a number of causes; transmission of the heart-beat to the liver and to asystolia. This latter cause can not be considered

for the heart is normal. Then again, there are subjects who present regular nervous contractions of the diaphragm which with marvelous and rhythmic motion may simulate the heart pulsations; but one only has to count them to see that they are less in number than the beats of the heart. Finally, there are certain neurasthenic patients who have pulsations in the epigastrium, but these do not show a tendency to expansion; this is characteristic of these patients and our patient is one of them.

Pulsations of nervous origin have long been known; Hippocrates mentioned them. Lancisi, in recent times, has given an accurate description of them, showing that they are observed in nervous patients, in hypochondriacs, hysterics, and in neurasthenic and exhausted individuals. Laënnec also met with them; and Stokes, finally, described them, having met with them in nervous and dyspeptic patients, and pointed out that they were especially to be observed at the menstrual period and at the beginning of pregnancy. They are especially frequent in nervous subjects.

In our patient the pulsation is not expansile; this may be easily appreciated by pressing the flaccid abdominal walls down upon the aorta which may be felt between the two fingers. It will be seen that its calibre does not vary. The pain is also not that of an aneurism. The pain of which our patient complains is especially nocturnal, a peculiarity which is not observed in aortic aneurism; again, it is not as intense as that of aneurism, where the patients grind their teeth and roll on the floor, with agony. The pain, finally, is epigastric and not dorsal, and though the last dorsal and first two lumbar vertebræ are sensitive to pressure there is not the terrific pain of aneurism. Therefore, in our subject it is purely nervous; she has also, as we before stated, associated neurasthenic symptoms. Besides she presents stigmata of hysteria, anesthesia of the pharynx and analgesia especially of the right side. Yet disturbances of vision are lacking, so that the neurasthenic symptoms are the more conspicuous and we may safely say that she is neurasthenic, with traces of hysteria. These epigastric pulsations are of neurasthenic origin, with no trace of aneurism.

Did these pulsations arise from this

disease, neurasthenia? We had remarked that the abdominal organs of our patient were somewhat relaxed; the same holds true of the abdominal aorta, which is moveable and insufficiently fixed at its insertions and along its course; in fact, the vessel is displaceable under the finger.

Now this abnormal mobility of the viscera, in her case, dates back several years to her last confinement and it gives rise in all probability to the dyspepsia which we mentioned before. The question arises how the aorta comes to pulsate so violently while the remaining portions of the arterial system beat normally. Galen, who admitted that the arteries were provided with an expansive force of their own, would have found an easy explanation. To-day, since we know the laws governing circulation, this will not hold. We know that expansion of the arteries is but due to contraction of the heart. But, the pulsation of the arteries does not depend alone upon the mode in which the blood enters the arteries, but also upon the way in which the vessel wall reacts, so that the more that it resists the blood-wave the greater will be the intensity of the beat. Here this mobile aorta resists badly the advancing blood and transmits the violence of the heart impulse to its walls.

Possibly, a slight degree of aortitis might be added to this picture, but this is doubtful. Firstly, abdominal aortitis is very rare. It has been demonstrated to affect the thoracic portion by preference. In necropsies where the abdominal aorta has been found to be affected the thoracic portion has been also found involved. In our subject there are no signs of aortic involvement.

The treatment? Let us confess it at once. Our means of treatment in this affection only too frequently are inactive, and the pulsations will remain for years and years, in spite of all treatment. Yet if they do disappear a favorable prognosis may be given for with them, the other nervous symptoms vanish. Is the neurasthenia dependent upon this enteropneumosis? Glenard's disease? I doubt it. Neurasthenia is derived from and dependent upon a number of causes. We shall treat the anemia and nervous symptoms by rest and appropriate diet, which are carried out in a hospital. Other measures we shall reserve till later, when a decided improvement has been obtained.

INCONTINENCE OF URINE IN CHILDREN, TREATED
WITH ATROPIA.

[ABSTRACT.]

T. P. SATTERWHITE, M. D., LOUISVILLE, KY.

Incontinence is a malady that is more frequent in boys than girls. It may come on at any period of childhood life, and often continues until puberty, if not relieved. Many persons having the control of such children resort to punishment for a cure; the ignorant, and I regret to say more intelligent people, are often cruel to the little subjects.

It should be the duty of all medical men, whenever they are consulted on this subject, to take especial pains to explain that the trouble is beyond the control of the child, that punishment is not only fruitless, but absolutely cruel, and not infrequently assists in perpetuating the habit.

The causes of incontinence are numerous requiring careful analysis to determine the source. Simple enuresis is purely a nervous trouble. That occurring not only at night but during the day may be caused from some congenital malformation or from reflex trouble. The nocturnal incontinence is far more frequent and less serious than when it occurs both day and night.

Some of the causes that produce this affliction are, atrophy of the bladder, overflow from vesical paralysis, phimosis or adherent prepuce, leucorrhœal discharge in little girls, calculus in the urethra or bladder, an impacted fecal mass in the rectum, the round or thread worm, or any rectal or intestinal irritation; in fact, irritation of the remotest part of the body may cause incontinence. Cystitis will cause loss of control of the bladder and when severe enough there will be no difficulty in determining the cause in this instance. Indigestion is a prolific cause, excessive acidity of the urine frequently an exciting cause. Improper feeding at night or late in the evening may produce gastric disturbance which, by its reflex irritation, causes wetting of the bed. When the cause cannot be discovered our treatment will of course have to be experimental. The general health in all cases should receive our first attention. The disease cannot be cured as long as the digestive

apparatus is disturbed. Poor health is a potent factor in maintaining enuresis. The child should have a liberal amount of strictly wholesome food; a very light supper and but little fluid during the evening. If there is hyperacidity of the urine that must be corrected,—we must see that the patient is kept in the best possible general health and remove any reflex trouble that may be discovered.

The treatment by belladonna has been a practice of such long standing that probably every member of this Society can remember when he commenced the practice of medicine, this remedy was recommended and used. Various results have been obtained from its use, but its long continued employment in this trouble shows its usefulness notwithstanding the varied experiences of practitioners. This varied experience is due in my opinion to two causes; first, that the incontinence was not due to a neurosis simply but to a reflex trouble which required surgical interference; second, that the remedy was not pushed to its full physiological effect and continued long enough.

When the smallest physiological dose of atropia is administered the only symptom is dryness of the throat and mouth, possibly some disordered vision. When a larger amount is given this dryness becomes more intense and is associated with redness of the fauces, dilated pupils, disordered vision and possibly diplopia. Often from the first, certainly after a short time, in all cases the heart's beat becomes rapid, and after a large dose of the alkaloid, exceedingly rapid, often accompanied by a peculiar red flush on the face and neck, which may spread over the whole body. In very severe exhibitions of the rash, desquamation of the skin sometimes follows. Intelligence may remain perfect, but there is generally some lightness of head, giddiness and confusion of thought, as well as a staggering gait. Even with doses that are medicinal there are spectral illusions. Drowsiness is not a general or at all char-

acteristic symptom. When a decidedly poisonous dose of belladonna or its alkaloid has been taken, all these symptoms are intensified; sometimes the patients are exceedingly violent and convulsions may appear, followed by stupor and paralysis. Lividity of the face, showing imperfect aeration of the blood, is not seen in atropia poisoning, except in a stage of most imminent peril. Death is preceded by marked heart and respiratory failure.

Upon the muscular structure of the heart itself atropia acts as a depressant, but it would have to be taken in very large amounts to be apparent. On the other hand atropia acts, it is claimed, on the cardiac nerve centers as a stimulant, and unless taken in very large amounts does not destroy excitability of these nerves.

Evidence is directly in favor of the fact that atropia in small doses contracts the capillaries, and only when poisonous doses are given do they become dilated. Atropia acts on the peripheral filaments of the nerves, it is mainly eliminated by the kidneys, and its local action on the nerve filaments of the bladder, I have no doubt, is one of the modes of relief for incontinence, when the interior of the bladder is the seat of the trouble. We are all familiar with the local action of belladonna to relieve pain as in myalgia, lumbago, pleurodynia, etc.

In the last eighteen months I have treated five or six cases of nightly incontinence, all of whom responded satisfactorily to the atropia treatment when administered to its full physiological effect. In all my cases I used the metric granules manufactured in Philadelphia, commencing with the $\frac{1}{100}$ of a grain three times per day, increasing the dose gradually for the first two days. After that the increase was more rapid until there were some decided symptoms of distress; even then the dose was continued cautiously and the toxic symptoms would often disappear without decreasing the amount. In only three cases did I have to gradually decrease the dose that was being administered. It is also necessary in the treatment to require the child brought under your daily observation to consider the propriety of increasing, maintaining or decreasing the medicine. I find we cannot intrust to the parent the dose that is to be administered, and it is not improbable the mental effect of visiting the doctor every day is beneficial.

In one case a boy æt. nine years had wetted the bed every night from birth, and seldom less than twice a night. The first dose administered was $\frac{1}{100}$ of a grain; it produced such nausea with vomiting and general redness of the surface, that his parents were alarmed. I decreased the dose slightly for several days; the child that week soiled the bed only three times. The dose was then gradually increased daily with the result, at the end of the second week of a slightly improved record. The dose at the end of the third week had gotten to $\frac{1}{20}$ of a grain three times per day, with the result of additional improvement. The atropia was increased to $\frac{1}{10}$ of a grain before the child was cured. Singularly to state even at this dose, although the pupils were fully dilated, he never complained of his vision or any other unpleasant symptom. Nor did any of the children that I have treated though they played out in the sunlight. I will state with regard to this case that I treated the mother for typhoid fever while she was pregnant with this child. At birth it was fairly well nourished. It was born with a cleft palate and the eyes, as the child developed, showed a want of coördination; its digestion for a bottle-fed child was good. Two nurses were necessary as one was unable to attend to on account of its sleeplessness. I rarely gave it an opiate. Bromide and paraldehyde were given with only partial relief. I then put the child on the hyperphosphate, it immediately acted like an opiate and the child was a good baby from that on.

The second child was eight years of age, a robust, healthy looking boy who had been soiling the bed for five years. He was relieved very promptly and I withdrew the medicine abruptly. The incontinence returned in a few nights and I had to recommence the treatment. The medicine was then gradually withdrawn and the cure was completed.

Reasonable View of the Case.

"Jared" exclaimed Mrs. Strongmind, "come in! You've sat out there on the front porch long enough. If you don't want to get locked out for the night you'd better move yourself!"

"My dear," expostulated Jared, mildly, "as the husband of a woman of your superior attainments and high personal worth don't you think I ought to be treated with a little more respect?"

GUAIACOL IN APPENDICITIS.

J. W. IRWIN, M. D., LOUISVILLE, KY.

On March 24th, I was called to see a girl fifteen years of age, and found her suffering from appendicitis. Her temperature was $104^{\circ}.5$ F. She was complaining of rigors, etc., and had been all the day before; she could not be gotten warm, extremities cold but her axillary temperature was $104^{\circ}.5$; and she was suffering with severe pain in the right iliac fossa, on a line with the anterior superior spinous process of the ilium about four inches toward the median line. There was one spot of tenderness at the point I have indicated, and I diagnosed appendicitis. The next day there was a well defined tumor, about three inches in length and one and a quarter inches in diameter, extending upward and outward in the region indicated.

The patient had received the day before I saw her (she had been sick twenty-four hours when I was called) two grains of calomel, administered by the mother, and that had been followed a few hours later by a dose of castor oil. Very free purging followed the use of the castor oil, much more than the mother had anticipated. The evacuations were watery and very offensive and contained nothing but fecal matter which had a peculiar odor, very much like that of the evacuations in the latter stages of summer diarrhoea in children. The limbs could be straightened and she could lie flat on the bed without causing any increase of pain. Turning in bed to the left very materially increased the suffering, to the right it eased the pain. I felt certain that the trouble was appendicitis on my first visit. I administered paregoric and saw her again six hours later.

Temperature was still high in the axilla, and the nurse could not get her warm.

I had used guaiacol in typhoid fever, in three cases, applied over the iliac region, and thought I would make use of it in this case to see what effect it would have on the inflammatory process. I directed that fifteen drops of guaiacol should be painted over the seat of the disease, applying it over an area about the size of the palm of the hand. Cotton was applied over this and held in place with a binder. An hour or so later the temperature had fallen one

degree. Whether it was from the effect of the guaiacol or a normal defervescence I was unable to determine. During the night her temperature ranged about 103° and in the morning it was 104° F. I then applied twenty drops of guaiacol over the same area without previous washing, and dressings as before. Two hours later the temperature had fallen to 99° F., and the patient was asleep. Her mother remarked to me then: "Doctor, can't I use that application oftener; soon after it was applied it relieved the pain and she fell asleep." Of course this relief may have been due to the paregoric and not to guaiacol. Anyway as the temperature was reduced the patient became very much more comfortable. The application of twenty drops of guaiacol in the morning at nine o'clock, controlled the temperature until seven in the evening, when it rose to $103^{\circ}.5$ F. Another application of guaiacol kept her comfortable through the entire night and the following morning until twelve o'clock. Meantime her temperature ranged between 99° and 103° . Two applications of guaiacol a day controlled the temperature, made her comfortable and relieved the pain. A drachm dose of paregoric was given at night to enable her to rest as she was somewhat nervous.

There was no sweating under the use of guaiacol, and after the reduction of the temperature, the skin remained dry. This is the seventeenth day of her illness, and there has been no elevation of temperature since the thirteenth day. The tumor has decreased in size; the tenderness has diminished under the local applications of guaiacol. Paregoric, an occasional enema, and some salicylate of quinine were the internal remedies. This with rest and a very strict liquid diet was the treatment. I think the patient will now get well without the formation of an abscess.

I saw another case this morning, in a gentleman seventy years of age. The attack is not very severe, he has been sick three days. Indications at first pointed to disease in the right iliac region and there was considerable distension of the colon, but no tumor could be discovered. There was some little doubt as to the nature of

the trouble, and he was thoroughly purged with castor oil in the beginning of the attack. His temperature was 101° F. at night, and from 99.50° to 100° F., in the morning. Pain not very severe.

This morning I saw the case for the first time; there was a large sausage-like tumor in the right iliac fossa, extending from the anterior superior spinous process of the ilium down in the direction of Poupart's ligament. Tender under pressure. The colon was distended with gas, but there was no tenderness in the region of the caecum, which we sometimes find in appendicitis. This case was diagnosed appendicitis and as the gentleman is quite old with a feeble constitution the probabilities are that an abscess will form and the surgeon will be called in and the usual operation and autopsy will follow.

We did not apply guaiacol in this case because the temperature was not high enough to demand it, but gave him codeia one-half grain, to relieve pain and cause sleep. What the outcome of the case will be of course I do not know, nor do I know that surgical interference will be necessary. We will try to bring about a cure without resorting to surgical measures.

I have looked up the history of appendicitis recently with especial reference to the mortality in cases operated upon and those treated by the medical plan alone, and so far the result in the treatment of appendicitis medicinally is much more successful than where the operation has been resorted to. However in many cases it is probable surgery has not had a fair test. I have no doubt if many cases had been operated upon earlier they would have gotten well. In the extreme stage of the disease after general peritonitis has supervened, recovery is not so likely to follow, therefore the surgeon hardly has had what may be called a fair chance. The mortality after operations in appendicitis, so far as I have been able to collect, is about 45 per cent., while the average mortality after medical treatment is 20 to 27 per cent. The difference, however, may be due to the fact that the surgeon usually receives none but the worst cases to operate upon.

In the last twenty years I have treated at least forty cases of appendicitis; two cases a year would be a very conservative estimate. I have not had a death to occur from this cause. I have had to open abscesses and I have had abscesses to burst

in various directions, and some of my patients are permanently crippled. While after the operation results have not been all we would like to see, yet when considered from every point of view, the operation must be regarded as the most rational method of treating appendicitis. The physician stands over these cases in great suspense, as he does not know at what minute perforation may take place and infiltration of the peritoneal cavity may cause general peritonitis and death. If this does not occur, he has to look forward to a recurrence of the disease, especially in the young. I am of the opinion that the time is not far distant when we will be able to reach such a point that the disease will be recognized early, the operation consented to at once, and prompt relief and cure will be obtained.

While I have not the statistics of appendicitis clearly in my mind, I believe males are more subject to the disease than females, in the proportion of 100 to 16. The age at which it is most likely to occur is between twelve and thirty-five years. It may occur in earlier life, and on the other hand, it sometimes attacks older people, as in the case I have just reported. So when I look at these cases in their different aspects, while I am inclined to be conservative, my experience leads me to make this statement, not looking at cases from the standpoint of saving life alone, I am in favor of early operative procedure, as I believe surgery will give better results than any other method of treatment. While the patient may get well without the operation, we cannot say that the disease will not occur again, and knowing this, while he is strong and no damage has been done to adjacent parts, the operation can hardly be any more fatal than exploratory incisions.

Diphtheria and Citric Acid.

Dr. H. Laser (*Hospitals-Tidende*), on account of the destructive influence which citric acid exerts on the micro-organisms of diphtheria, has adopted the following treatment in diphtheria: Each hour let the patient gargle with a dilute solution of citric acid which is prepared by addition of a tablespoonful of a 5 to 10 per cent. solution to a glass of water. Besides, have the child suck slices of lemon or drink a lemonade, which is prepared by squeezing a lemon into a glass of sweetened water.—*Lancet-Clinic*.

THE MEDICAL AND SURGICAL REPORTER

ISSUED EVERY SATURDAY

HAROLD H. KYNETT, A. M., M. D.
Editor.

PENFIELD PUBLISHING COMPANY
Publishers.

Asbury Park, N. J.—1026 Arch Street, Philadelphia, Pa.

TERMS:—Three Dollars a year, strictly in advance. Sent four months on trial for \$1.00.

REMITTANCES should be made payable only to the Publisher, and should be made by Postal Note, Money Order or Registered Letter.

NOTICE TO CONTRIBUTORS:—We are always glad to receive articles of value to the profession, and when used they will be paid for, or reprints supplied, as the author may elect. Where reprints are desired, writers are requested to make a note of that fact on the first page of the MS. It is well for contributors to enclose stamps for postage, that the articles may be returned if not found available.

SATURDAY, SEPTEMBER 8, 1894.

EDITORIAL.

PROBLEMS SCIENCE HAS NOT SOLVED.

In the President's Address, recently delivered at Oxford before the BRITISH ASSOCIATION FOR THE ADVANCEMENT OF SCIENCE, Lord Salisbury gave utterance to some words of wisdom which deserve wide circulation and thoughtful consideration. His line of thought is one familiar to every fair-minded scientist in private cogitation, but, as the speaker suggested, it did not follow the precedents usual in addresses of this character. His predecessors, in their annual addresses "had defended science when it was the object of attack, had defied theology when it was the antagonist of inquiry and investigation; and, in later years, had presented annually a bird's-eye view of the field in which they all were working." Lord Salisbury would none of these but gave a clear and able presentation of the limitations of scientific attainment as they appear to a layman who is by education, training and observation fully qualified to form an intelligent and unprejudiced judgment. His theme was "the problems science has not solved, the mysteries it has not penetrated, and the seemingly unfathomable depths its plummet has not sounded."

"The time for controversy is past; for few thinkers are now influenced by the strange idea that religious belief depends on the results of physical research. There is no longer antagonism between theology and science, because the latter has established its position. Nor was it for him to review the victories of science; rather let him set forth what seemed to a layman the fields of knowledge yet unexplored."

The address is a protest against "that mechanical theory of the universe which masquerades under the term evolution," and is a strong aggressive argument developing the conclusion that "undirected evolution is an impossible conception;" that "the argument of design has been too much overlooked," and that "the process of natural selection is only operative as it is guided by a great, directing purpose."

In working up to this main proposition—which may be regarded as the failure of science *scientifically* to demonstrate in the operations of nature, the absence of a free will, above all and controlling all—Lord Salisbury predicates:

"As scientists, we live in a small, bright oasis of knowledge surrounded on all sides

by a vast unexplored region of impenetrable mystery. The most familiar matters furnish the hardest problems. There are sixty-five substances which chemistry regards as elements, but only a third of them are used in the formation of this planet. Another third are useful, but somewhat rare. The other third are curiosities, scattered haphazard over the globe, with no apparent function but to provide occupation for the collector and the chemist. All of these elements seem to have as much relation to each other as the pebbles on a sea beach or the contents of an ancient lumber-room. How did this random collection of dissimilar materials come together? Science does not know. As little does science know of the atom, or of the mysterious ether, which we are told fills all space with its undulations. Least of all does science know life, its essence, its origin, or its operation. This is the great central mystery.

"Life is the unknown force which continues to defy not only our imitation but our scrutiny. Not only is this true of life itself, but the deepest obscurity still hangs over the origin of the infinite variety of the forms of life. The Darwinian theory of natural selection is not sufficient to account for this infinite variety, and this inadequacy was never so generally recognized as now. The common ancestry of most if not all species is conceded, for since Agassiz there has been no great defender of the permanency of types. The problem is how this wide divergence of species has been accomplished. What force has been at work? What have been its methods? The Darwinian explanation has never satisfied a considerable number of scientists who are evolutionists, because at least two insuperable objections to it have never been removed. On the other hand, some of the ablest disciples of science are wholly content to explain species by natural selection. But while this wide difference of opinion exists be-

tween equally competent authorities, the problem cannot be regarded as solved.

"Lord Kelvin has never been answered since he objected, twenty years ago, 'that the amount of time required by the advocates of the theory for working out the process they had imagined could not be conceded without assuming the existence of a totally different set of natural laws from those with which we are acquainted.' The earth is not old enough, and there has not been time enough since it was possible for life to exist upon it for this divergence of species to work itself out. It is the biologist against the mathematician, the former demanding at least a hundred million years in which to cover that vast distance from the jelly-fish lying on the primeval beach to man as we know him now, and the latter refusing to grant it. The prodigious change requisite to transform the one into the other is made up of a chain of generations, each advancing by a minute variation from the form of its predecessor, and in 3,000 years the variation has not advanced by a single step perceptible to our eyes in respect to man and plants with which we are familiar. The biologists are therefore justified in demanding many hundred million years for the stupendous process. But the mathematicians measure the rate by which the earth is cooling, and deny that organic life could have existed here even one hundred millions of years ago. Between the biologists and mathematicians natural selection hangs suspended in the air.

"Weissman admits that natural selection cannot be demonstrated in detail, nor can it be easily imagined, but that it must be accepted because it 'is the only possible explanation we can conceive.' This admission puts the theory at once in the list of questionable hypotheses, and leaves wide liberty for the search for a more satisfactory one, which one finds in the old theory of design. There is no inconsistency between the doctrine of evolution

or progress by selection, and the mediate or immediate agency of a principle of design. On the contrary, the principle of design is not only wholly scientific, but the most scientific explanation of the great mystery with which he has been dealing."

In conclusion, quoting from "the greatest living master of Science among us, Lord Kelvin," Lord Salisbury finds that "overpoweringly strong proofs of intelligent and benevolent design lie around us, and if ever perplexities, whether metaphysical or scientific, turn us away from them for a time, they come back upon us with irresistible force, showing to us through Nature the influence of a free will,

and teaching us that all living things depend on one everlasting Creator and Ruler."

NOTICE.

American Medical Association, Office of Permanent Secretary, 1400 Pine street, Philadelphia.

The Secretary of each Medical Society is earnestly requested to send to the undersigned the following information:

Name of Society—

Officers, with P. O. address—

Time and place of meeting—

W. B. ATKINSON, M. D.,
Secretary.

ABSTRACTS.

MEDICAL EXPERTS IN DAMAGE SUITS.

In a paper by Dr. W. B. Outten, Chicago, Surgeon of the Missouri Pacific Railway, published in *The Railway Surgeon*, on the subject of "Medical Expert Testimony," Dr. Outten says:

The amount of special and peculiar knowledge or skill of the expert is to be determined by the trial judge, and he is oftentimes a very good lawyer, but a very poorly informed person in a medico-legal way. The proof demanded does not generally bear the stamp of much profundity of thought, the statement of the qualification of the expert is usually made by the expert himself. He may qualify himself by proof of his legal right to practice the profession in which he is engaged, or by showing that he is conducting a business, a wide knowledge of which he should, but may not have. To testify as an expert there, is usually no proof either offered or required as to fitness; generally the fact is accepted that the expert has been or is engaged in a business or profession which should give him the required knowledge and experience to qualify him. The question of his actual knowledge is left to be ascertained from his own answers on cross examination. And as before stated the possession of such knowledge and skill—in the medical expert—is presumed in medico-legal cases if the witness is a licensed practitioner. A leg-

alized or licensed practitioner in our country, particularly in some western states, means merely a self-imposed or authorized prefix to a name to constitute a full-fledged physician.

I was once informed by a medical student who had failed to pass the final examination at a medical college that he was now a legal practitioner, that he had passed a satisfactory examination before a local board of examiners in a neighboring state. Upon inquiry I elicited the fact that the local or country board in the country in which he was practicing consisted of a blacksmith, a barkeeper and a justice of the peace and as our informant expressed it that there was "not much medicine in the crowd, but a good deal of muscle and whisky." Again in some states no qualification whatever is exacted, while again in others a limited period of time as an inhabitant of that state constitutes a legalized practitioner. In order to demonstrate the utter and complete inutility at times of the term "legalized practitioner" a few illustrations will not be out of place.

A passenger on a railway train by the overturning of a coach sustained severe contusions about the back extending from the shoulders to the buttocks, together with a fracture near the left wrist and a contusion of the right ankle joint. In

describing his injuries he said: "My left leg was broken, shivered I think, my left arm broken, and also my right collar bone, my back and sides bruised, and a plug cut out of my lip," and sued accordingly. Immediately after the injury he walked without assistance a distance of six hundred yards, transacted business, boarded a train and rode one hundred miles, and then drove in a wagon five miles into the country. At no time from the moment of the accident to the date of the trial was he unable to walk. He went to another state and there a doctor treated the fractured wrist with brown-paper and vinegar, which was all the medical treatment the injured man received. In the deposition of this doctor who had qualified as an expert occurs the following:—Q. "How long have you been practicing medicine?" A. "For the past thirty years." Q. "Where did you graduate?" A. "I never graduated, don't see any use in it." Q. "How many bones have we in the wrist, Doctor?" A. "Only one." Q. "What is that bone called?" A. "The nuptial bone." Q. "How many bones have we in the forearm?" A. "One." Q. "What do you call it?" A. "The meridian bone." Q. "How many bones have we in the thigh?" A. "One bone." Q. "What do you call that?" A. "Call it curb bone." Q. "Are you not in error both as to the number and names of these bones. Have we not eight bones in the wrist joint, not to speak of the radius and the ulna, which form the articulation of the joint?" A. "That might be, but during the war my books got burnt, and I hain't had any since."

Another illustration in the same case: The expert in wit perhaps, if not in knowledge in the matter in issue, who appeared to find most favor in the eyes of jury, answers as follows: Q. "Are you a surgeon?" A. "Yes, sir." Q. "Is it necessary for a surgeon to understand anatomy?" A. Yes, sir." Q. "How long is the spinal cord?" A. "I don't know." Q. "Where does it begin and where terminate?" A. "I don't know." Q. "How much does it weigh?" A. "I don't know." The attorney becoming annoyed at the nonchalance with which the doctor confessed his ignorance asked with some asperity: Does it run up and down, crosswise, diagonally, or how?" The doctor winked at the jury and answered—"I think so." The attorney, changing tac-

tics, in the blandest tone asked: "Doctor, you claim, I believe, to be a good surgeon and a good anatomist?" A. Yes, sir. Q. "What is the flexor accesorius seu massa carnei Jacopis Sylvii?" The doctor said quickly "I declare I don't know unless it is an inquisitive lawyer." And still the verdict was for a good amount.

Again upon one occasion a legalized practitioner was testifying as an expert in a case where a lady passenger upon a railway train had been injured, and in the course of his examination boldly declared that a retroverted womb with existent adhesions had been caused by the accident, when it had been proven that this condition had existed some years prior to the accident. In the process of cross-examination the doctor indicated much ignorance and confusion as regards his views of versions and flexions of the womb, and finally asked in what condition he found the lady's prostate gland. He very gravely answered that it had not fallen yet, but there were very serious doubts about its remaining in its normal position. Thus it may seen that while a qualified practitioner under law constitutes an essential basis of the expert yet in reality it oftentimes is the reverse.

It is a fact noted not only by attorneys of experience but by others attendant upon court that experts are more frequently selected not because they are especially well qualified or most competent to form a correct judgment but because their opinions are known to be favorable to the cause of the litigant at whose instance they appear in court. It is unfortunate, but the natural trend of most men is in the direction of partisanship, and equally unfortunate that the medical expert is very rarely surperior to this trait. In fact it comes very near to being characteristic, and in our experience specialties in medicine seem to strangely influence this course. The testimony of an expert is for the most part not given from the witness' own examination and estimate of the material fact but upon hypothetical cases which are supposed to embody the facts in evidence in the cause, but which confessedly may not embody all the facts material to the formation of a correct judgment. The hypothetical case is framed by one versed in law, and not medicine is built upon a theory in law, and as before stated oftentimes but poorly represents the true issue in fact.—*Railway Age.*

THE PHYSICAL BASIS OF KNOWLEDGE.

The surface of the brain has many centers upon it, whose functions have been carefully studied. In addition to these centers, there are tracts of nerve matter connecting them with each other, so that associated or concerted acting of the brain centers becomes possible—indeed, is of constant occurrence. One hears the word "rose" spoken, and immediately the image of a rose is recalled; there is a recollection of its odor, of its color, of its size and shape, and a stimulus goes to the proper center, so that the word "rose" may be spoken or written, if it is so willed. It is these tracts or paths of nerve matter that enable the brain to build up our complex ideas. It will be seen from what has been said that the word "rose" carries with it many elements, such as color and shape, learned by experience through the eyes; taste, by the tongue; odor, by the nose; weight, by the hands. But all these qualities of taste, color, odor, weight, etc., go to make up our complex idea of what a rose is. These varied primary or elemental ideas have reached the brain by separate channels, have formed memory pictures on the centers, which, in turn have become associated by means of the inter-central nerve paths into complex ideas.

In addition to the impressions reaching the brain through the nerves of hearing, sight, taste and olfaction, there is a constant stream of sensations pouring into the brain along the nerves of feeling. It has now been pretty well settled that some of the nerve fibres conduct sensations of heat, others of cold, some of pain and still others that sensation known as muscular effort, or the muscular sense. All these are carried to different parts of the brain and there registered. From this registry, they can be called up as a memory of past experiences. It will now be clear that there a constant stream of sensory currents or sensations coming into the brain from all parts of our bodies. These sensations have their mental accompaniment. When a current escapes from the brain, and goes outward for the purpose of moving some muscle or group of muscles there is also a mental accompaniment. It is in this way that we are aware of how we are acting and being acted upon. These constitute states of consciousness. The conscious

personality, or conscious ego, is the sum of all the states of consciousness at one time existing.

In a moment, by disease or injury, a man may lose the power to speak, and yet be able to read and write; or he may be unable to read, and yet hear what is said. Some may have the center of hearing so damaged that the power for music is gone and still be sound in every other respect. Some, again, may lose the power of recalling words. They know them when written or printed; but they cannot speak, because they cannot recall the words needed to express their thoughts. Enough has been said to show that the brain and all the nerve tracts leading to it and from it are the physical basis of knowledge. Derangement in these is followed by derangement in the mental powers. Insanity is only diverse, affecting the brain so as to derange and pervert the thoughts, language and actions of the person. This view of insanity has done much good, as it has led to a better method of dealing with insane people. The anatomical and physiological study of the brain shows that it is the organ of the mind; but further observations made in cases of disease and injury of the brain as well as on cases of insanity, go to establish this doctrine beyond all dispute. Illusions, hallucinations and delusions owe their origin to some derangement in the sense organs or in the perceptive centers in the brain. Following upon this, the conscious ego is no longer in its true relationship to its environments, and there is, as a consequence, derangement of conduct, as the result of the physical disease.—*Canadian Mag.*

Benzoate of Sodium.

The combination of borate of soda and benzoic acid is extremely beneficial in various forms of kidney and bladder difficulty. Perhaps the most advantageous results are obtained when there is an excess of insoluble urates or of uric acid; the urates are at once converted into soluble, harmless, easily eliminated hippurates.

In high specific gravity of the urine, excessive urea in lithæmia, in lithæmic albuminuria, and renal hyperæmia resulting from these conditions, the mixture is exceedingly serviceable.

NOISES IN THE HEAD AND EARS.

Dr. Barclay, Aural Surgeon to the St. Louis Baptist Hospital, in the *Hospital Bulletin*, (May, 1894,) writes:—"The question is frequently asked 'What are 'Noises in the Head and Ears' and what is their signification?'"

A satisfactory answer can perhaps be deduced from the following discussion;

Aerial sound-waves, reaching the healthy ear with sufficient force, impart that force to the movable tissues lying between the outer air and the auditory nerve filaments in the labyrinth where tissue vibrations are transformed into nervous stimuli, these stimuli being thence conveyed to the auditory centre in the brain, where they are interpreted, by consciousness, as sound.

The movable tissues spoken of above, by whose operation the force of aerial sound-waves is transmitted to the terminal filaments of the auditory nerve, constitute an apparatus which is generally termed the "transmitting-mechanism" of the ear. This transmitting-mechanism moves, if at all, as a solid body, in response to the impact of sound-waves; and may therefore, so far as its obedience to the force of sound-waves is concerned, be considered a mechanical unit, a vibratory lever, as it were. This vibratory lever, so to speak, is, normally, so nicely adjusted and related to the parts with which it is in contract or connected, that, however numerous and complicated its attachments, contacts, or connections, however complex its pivot or fulcrum, mechanically, and whatever the nature of its equilibrium, it may be looked upon as constituting with other parts a balance whose tension with those parts preserves a certain equilibrium. Now the transmitting mechanism of the ear is so constructed that aerial sound-waves act more directly and more effectively upon one end of this balance than upon the other, thus disturbing the relation between all parts of the transmitting-mechanism and the other portion of the balance—moving the balance upon its pivot, as it were, and the fluid in the labyrinth, thus disturbing the terminal filaments of the auditory nerve (which are at rest when the balance is at rest), and inducing a sensation of sound at the auditory centre.

On the other hand, tissue sound-waves,

generated within the head in performance of the physiological functions of phonation, respiration, circulation, mastication and deglutition, or transferred to the head by contact with musical instruments, tuning-forks, etc., act upon the healthy ear as force exerted upon the fulcrum only, or, simultaneously, upon all parts of a balance, producing but little if any disturbance of the balance as such, nor disturbing the relation hitherto existing between the transmitting-mechanism and the contiguous parts in the labyrinth, but pass out over the bridge of ossicles and drum-head as force is transmitted through a straight line of touching billiard-balls, without their appreciable disturbance, to be discharged at the last ball.

If however the exit of such sound-waves is obstructed by any condition of a mechanical nature, the waves rebound with a force proportional to the degree of obstruction; and disturb the relation between the deeper-lying parts of the transmitting-mechanism and the tissues enclosing them, displacing the auditory nerve filaments and inducing a sensation of sound.

It should be borne in mind that the presence of any adventitious substance in the auditory canal—whether excess of cerumen, a verruca, exostosis, wad of cotton, "foreign body" or what-not—will, so far as it obstruct the exit of sound-waves, cause them to rebound, with force frequently sufficient to drive the echo back again through the transmitting-mechanism to the nervous apparatus. If the lumen of the canal be closely stopped with the finger, cerumen, or other obstacle, the echo is rendered more forcible, not only by the completeness of the barrier from which it has rebounded, but through reinforcement from the drum-head, which acts as an additional barrier in that its excursion is abridged by the compression of the air shut up in the auditory canal. The same thing obtains where the tympanum contains liquid; when the Lumen Eustachian tube is obstructed or closed; or when other conditions exist, preventing excursion of the drum-head to a normally accommodating degree. When the foreign-body, cerumen, or other substance, rests directly against the drum-head, the excursion of the membrane is still more

effectually prevented, and the echo is the more forcible.

Whatever condition arises to disturb the normal equilibrium, the balance, as it were, of tension between the transmitting-mechanism and the parts with which it is in contact or connected, will more or less bind down one end of the balance, change the position of the fulcrum relative to the lever, so to speak, and render less effective

sound-waves from without, more effective those from within the tissues of the head, in their operation upon the terminal filaments of the auditory nerve.

The signification of Noises in the Head and Ears, then, is that of a disturbance of the normal equilibrium or balance of tension between the aural transmitting-mechanism and the parts with which it is in contact or connected.

HYPODERMIC INJECTIONS OF STRYCHNINE AND ATROPINE IN THE LIQUOR HABIT.

Dr. G. W. Bath, of Ohio, Ill, in the *Clinique*, says:—Two years ago I began giving treatment for the Liquor Habit. I reported 8 cases in the fall of '92. Since then I have had several letters from different parts of the country making inquiries about the treatment and the patients. It is with a view of answering these inquiries as well as making a final report that I write this paper.

The patients are all residents of this town and vicinity; so I have been able to see them nearly every day since they took treatment.

Concerning the efficacy of the treatment, I have this to say;—that it is a cure so far as the treatment of any disease is a cure. Indeed I think it just as sure as a surgical operation or the treatment of malaria or syphilis. Strychnine is the drug upon which I rely.

The form commonly used is the tablets of the nitrate one-fortieth gr. The strychnine is combined with atropine sulphate in quantities to suit; beginning with an injection of one-fortieth gr. of strychnine and from one two-hundredth to one one-hundred and fiftieth gr. of atropine; using the injections from two to four times per diem, according as the patient requires, and increasing the strychnine during the first week, until by the beginning of the second week the patient receives from one-eighth to one-fourth gr. each day.

The atropine is likewise increased to its full physiological extent, producing the dryness of the mouth and fauces and blurred vision. It is well to bear in mind that strychnine can be tolerated to a remarkable degree as reports on the treatment of asthma and various neuroses show. At the end of the second week the doses

must be decreased until the end is reached with about what was originally given.

After two to four days if the patient is drinking his desire for liquor will cease. Drinking and food taste badly. This is undoubtedly due to the fact that the secretions are charged with the drugs: some nausea will likely be experienced even to the extent of vomiting, especially if the patient persists in drinking. The atropine is liable to cause nausea when giving freely. Yet contrary to some authorities I think the strychnine capable sometimes of doing the same. In experiments with strychnine which I conducted upon myself, I found that when I attempted to move about the limbs stiffened; I felt my heart beats decidedly strengthen and had that sea-sick smile termed the "risus sardonius" but I became violently nauseated and vomited several times. I am told that at the "institutes" if the patient persists in drinking beyond 3 or 4 days and still craves it, he is given an injection called the "barber pole" because of the various colored liquids used in its composition. He is then handed a big drink and is told to go out and sit down. In a few minutes he feels that certain products will likely have a rise. He is not mistaken either, for up it comes. The "barber-pole" is nothing more or less than apomorphine which being a systemic and prompt emetic makes the patient believe that he can no longer bear whisky so he usually, after that, leaves it alone. I have never had occasion to use the apomorphine in this connection, finding that plenty of strychnine and atropine does the work.

The injections should be continued over a period of at least three weeks, during

which time the patient will have received from forty-five to ninety injections. It is well to give as an aid to the hypodermic treatment some tonic mixture as *nuxvomica*, *digitalis* with tincture of *capsicum*, if necessary; or some of the ordinary bitter tonics might answer, the entire idea of the treatment being to keep the system thoroughly saturated with the drugs, using such agents as best favor reconstruction of the nerve tissue and the elimination of the waste products. I consider atropine an eliminant of considerable virtue. By contracting the arterioles and thus increasing the blood pressure, the quantity of urine voided is much larger. The tonic action of strychnine upon the unstriped muscular fiber causes increased peristalsis and copious evacuations of the bowels result—although atropine alone when given for a period causes an increase of the stool.

Concerning the best time to treat the patients: I fancy the results have been more prompt when the patient has been drinking freely. I usually allow the patient to drink until he is tired of it. He generally quits of his own accord. But if one found it necessary an injection of the apomorphine could be used, to produce the impression that liquor was no longer borne and would vomit the patient if it were taken. Now, to speak of the results with my patients. It has been all any one could ask. I have treated three others aside from those named in the article referred to with the same satisfactory results. The second case given as D. H., took to drinking in about four months after treatment although thoroughly cured. He was like the poor dog Tray, who fell into bad company. His old chums actually poured liquor down him. The poor fellow was beset with all manner of temptations and finally succumbed to the old habit.

I am reliably told that he made poor business of it. That the whiskey made him quite sick. I am happy to add that within the last week he has resolved to give himself another chance and live a sober life, and I have begun the treatment for the second time with him. All the other cases except one have remained "cured." They enjoy good health, are successful in business, have neither become crazy nor impotent. Although daily were drink can be had, they say they have no desire for it.

In conclusion the most important point is the

MORAL.

My experience has been somewhat dearly bought. In this little town with three saloons I have incurred the enmity of the saloon men and their friends. One case which I foolishly undertook to treat about one year ago, was of a man who was the most complete specimen of a drunkard I ever saw. For several years he had never drawn a sober breath. He had all the advanced symptoms of total inebriety; swollen skin, yellow conjunctiva, shambling gait, loss of memory, incoördinate speech and gastric catarrh. Besides, he had suffered from delirium tremens frequently. In such a state was he when I undertook his case. I began his treatment on Saturday night and by the following Monday night he had no further use of my service—in plain words he was *dead*. He died in one of the worst spells of delirium I ever saw. I had given this patient but three injections of one-eighth gr. strychnine each. But it became a favorite fling of the "bummer class" that I had killed him, and the news of his death was carried from Dan to Bersheba. The moral from that case was always to inform the family that no risk will be assumed; and then if the patient dies during the treatment one incurs no responsibility. But wiser still I think it very risky when one is so far gone to ever attempt the case. One will be better off in every respect without such patients.

Another thing is the social standing of the patient. If the patient is a man of a family the chances for his continuance are much better. It is known that a great per cent. of drinkers are started in their career through lack of proper associations. They become accustomed to resort to the saloon to loaf and chat, and from that the road to drunkenness and vice is not difficult. So a great menace to the success of the treatment of the patient is, what can be done for him after he is reformed? A man must have more than ordinary stamina to reform his social life after he is cured of drink. Hence the great number of those who go back to their cups are those whose only acquaintances are old chums of the bowl. In

their reformed state they are like Robinson Crusoe on his island; and rather than endure this social isolation and taunts of their old companions they go back to drinking again.

Still another point necessary to bear in mind. It is necessary to impress upon the patient that a hypodermic injection will not make a reformation in him unless he is willing to help himself. He must be positively forbidden to lounge about the saloons simply that he may know whether or not his appetite is gone. Too many people expect to have somewhat of a miraculous nature in it. Not so at all. A man can certainly acquire a taste for drink in spite of the treatment if he persists in trying. The physician should also never attempt to treat a patient without his fullest consent and coöperation. If simply at the solicitation of his friends one treats him without his knowing what the treatment is for, the chance is good for a grand failure. The patient must realize that if he is to take treatment it must be a matter of sufficient importance

to him that he be completely under control. No hop, skip and jump matter, but one of serious business.

So much for the treatment.

But the physician's place should not simply be that of curing the drunkard. He should take stand as a public educator on the evil influence of alcohol. I say it without fear of contradiction that in the great majority of instances where liquors are prescribed, the patient would be much better off without them, and the physician would not be considered in the class of those "fellows who prescribed a little brandy for this complaint and a little beer for that." As a scientific man he should be above such shallow quackery and lend his aid to putting down this gigantic evil which largely underlies many of the moral corruptions of all lands. When scientific men get somewhat over the microbe craze they will still find sufficient work to expend their energies upon in trying to save our nation from the 100,000 deaths annually occurring through strong drink.

SOCIETY REPORTS.

THE LOUISVILLE CLINICAL SOCIETY.

April 10, 1894.

[STENOGRAPHICALLY REPORTED BY C. C. MAPES.]

POLYPUS OF LUSCHKA'S TONSIL.

DR. WM. CHEATHAM: This specimen was shown at the Surgical Society last night, and I only present it before this Society because in an examination of the patient to-day I have discovered that it is a rather unusual growth, or springing from an unusual locality. When I removed the growth yesterday I supposed it sprang from one of the turbinated bones, hanging down from the post-nasal space into the pharynx—a mucous polyp, but the bleeding was so free that I could not discover its exact origin at the time of removal. In making another examination of the patient to-day I found that the growth had its origin in what is known as Luschka's tonsil, left side. In looking over McKenzie's work I find he refers to only two cases of pedunculated growths of the pharynx. That being the case it

makes this polyp springing from that location very rare. It had undergone cystic degeneration; of course it collapsed as soon as punctured and is now only about one-third the size it presented when removed. This patient came from the country and gave the history of a peculiar sensation in the throat; that whenever she attempted to swallow it felt like she "was swallowing her own head." Soft mucous polypi of the post-nasal space originating in the nose are not very unusual; in their removal not much local anaesthesia is necessary, as the pressure of the growth produces a condition of semi-anæsthesia of the parts, so that traction can be made on the soft palate and the growth can be removed by the use of a very little cocaine. This growth was removed in the following manner: A weak solution of cocaine was sprayed into the

left nostril for anæsthesia and to shrink the turbinated tissue to enable me to pass a soft catheter through the nostril and out of the mouth, to tie the soft palate forward; to the end of the catheter I tied a string—silk thread—passing it through the nose and out of the mouth. After getting it through the nose and mouth, I cut the thread from the end of the catheter and tied the catheter firmly over the upper lip. I then took a Douglas snare with wire in canula and attached the end of the string which was in the nose to the loop of wire and pulled the wire and canula through the nose, and the loop into the post-nasal space and pharynx. With a velsellum the polyp was drawn through the loop, the polyp having undergone cystic degeneration, ruptured; in endeavoring to tighten the wire around the growth, the latter came loose. The snare I used and which I exhibit here, is one of the best for such operations, I know of. You will observe that the heavy handle can be detached and reattached with no trouble. Should the growth to be removed have undergone fibroid degeneration, thus making the operation more difficult, and increasing the danger of hemorrhage, it is of much more consequence, especially when the cold wire is used, to cut slow, to rest the patient often, and thus to avoid hemorrhage. While your patient is resting this heavy handle can be removed and easily reattached when you wish to continue the operation; with this screw as much force can be applied as with any snare. As I before stated the screw did not have to be used, not even the handle attached; when the growth came away, hemorrhage was not great, but enough to interfere with good visual inspection, and as the patient was much wearied I made no further examination that day. The next day I located the origin of the growth, as I stated before, from the left side of the pharyngeal tonsil; the stump was canterized with chronic acid. While on the floor I wish to refer to the soft rubber catheter as a means of plugging the post nose. Still better is a small copper wire as shown here. This will go through noses through which the catheter will not pass. It is also cleaner and can be thrown away after using once. However, nasal plugging is but seldom necessary now. The bleeding point is usually on the anterior half of septum, and can be usually seen and canterized.

DISCUSSION

DR. J. W. IRWIN: I was very much interested in Dr. Cheatham's account of removal of the nasal polyp, but more especially in regard to his statement that it is not necessary any longer to plug the nose in epistaxis. I wish particularly to ask the doctor what to do in some cases that come under the observation of the general practitioner, in inebriates, in bleeders, in those suffering from malaria-hemorrhagica, and disorders which terminate speedily in death unless some measure of this kind can be instituted, until constitutional remedies take effect. I have had the misfortune to see three deaths occur from epistaxis, two in inebriates and one in a bleeder, and also came very near losing four cases of malarial hemorrhage from the nose, and believe that death would have occurred if it had not been for plugging the posterior nares. I certainly would have lost one case because I could not get the patient early under the effect of quinine. In such cases I would like to know if Dr. Cheatham will suggest a remedy that would do away with the necessity of plugging the nares, and making the patient feel very uncomfortable?

DR. WM. CHEATHAM: In answer to Dr. Irwin's question: In a large majority if not all these cases, the bleeding is from the septum and not from the turbinated bones as stated by the older authorities.

In a large majority of cases you can wash out the nose, locate the bleeding point and canterize it. I remember a case not long ago occurring in the practice of another physician where a lady had excessive nasal hemorrhage and the physician had plugged both the anterior and posterior nares. I removed all the plugs, thoroughly washed out the nose, located the bleeding point on the septum, and with a pair of ciliary forceps which I happened to have in my pocket, I attached a piece of cork to each blade of the forceps and passed one blade in each nostril put one piece of cork against the bleeding point, took a strong cord and passed it around the blades of the forceps bringing them firmly together, and the patient had no further hemorrhage. Nasal breathing was not interfered with at all, as these pieces of cork did not obstruct the passage, and the patient was much more comfortable than with both the posterior and anterior nares plugged. The danger of sepsis is also very great from plugging

the nose, in fact we know it is almost impossible to prevent sepsis about the nose. It is necessary to exercise the greatest possible care in all surgical operations about the nose to prevent sepsis. In plugging the nose we have a quantity of decomposing blood which is very dangerous, and the method I have spoken of certainly is much more safe and more comfortable than plugging. On account of the susceptibility of the nose to sepsis, nasal diphtheria is more dangerous than that affecting the pharynx; in some such cases as those to which Dr. Irwin refers, plugging may be necessary, but not many.

In every case of nose bleeding I examine the heart, kidneys and liver.

Dr. T. P. Satterwhite read a paper on
INCONTINENCE OF URINE IN CHILDREN,
TREATED WITH ATROPIA.

(See page 322.)

DISCUSSION.

DR. J. M. KRIM: I have a case under observation now that has been suffering with chorea and incontinence of urine for some time. The patient is a little boy ten years of age. In an examination I found he had phimosis. As soon as he was relieved of the phimosis I expected the incontinence of urine and chorea would cease, but they failed to do so. I put him on atropia, starting with $\frac{1}{16}$ grain. After three weeks treatment the incontinence and chorea disappeared. Phimosis is frequently a factor in the production of chorea, and usually ceases when the phimosis has been relieved, but in this case the chorea continued for three weeks after the condition of phimosis had been relieved.

DR. J. W. IRWIN: I wish to commend the paper in detail; it is a very explicit statement of a condition frequently met with by all physicians doing a general practice. Certainly everything has been made plain by the essayist, and the paper could hardly be improved upon in a general sense. The causes of nocturnal incontinence of urine have been carefully enumerated, and I have no doubt in many instances many of them conduce to the trouble of bed-wetting. But my experience goes a little beyond the local cause of this trouble. I have found

most children who wet the bed usually of tubercular, or scrofulous diathesis, or they have a nervous predisposition. They have some history showing a departure from the standard of health as a rule. It is a rare thing to find a child who is robust and healthy in every respect to wet the bed persistently, but now and then a child will do so even when apparently in perfect health. When children overload the stomach, take excessive exercise, and become so profoundly tired that the call of nature is not sufficient to awaken them they wet the bed. Many cases can be accounted for in this way, in healthy children, who require no treatment beyond correcting the errors in diet or exercise.

The essayist spoke of the remedies employed in the treatment of this troublesome disorder and laid a great deal of stress upon the use of atropia. I believe that atropia as a single remedy is perhaps the best of all, but it is by no means a panacea. Instead of finding the urine acid in reaction, as stated by the essayist, I have frequently found it alkaline. I have often encountered children suffering from nocturnal incontinence of urine with cold extremities, cold skin, feeble circulation and a sluggish atonic condition of the whole body. In such cases I have found great relief to often follow the use of a solution of phosphorus—dilute phosphoric acid—three times per day as a constitutional remedy. In others I have found the tincture chlor. of iron to be most serviceable and it often gave permanent relief. I usually administer a dose of atropia at night and direct that as small a quantity of water be taken at bed hour as possible. I think phosphorus is a valuable remedy in many of the cases—the essayist also touched upon the use of this remedy—very frequently it has the effect of producing a complete cure. Quinine is also useful, especially tannated quinine. I believe this form of quinine to be the next best remedy to atropia, but it should be long continued and given in moderate doses. For a child two years of age two grains of tannated quinine three times a day would not be too much, and it should be continued at least, for thirty days. When a child is six, eight, or ten years of age and still wets the bed, I have found an excellent remedy in the Faradic current applied one pole (positive) to the nape of the neck,

the other (negative) to the perineum. An application of this agent twice or thrice weekly does much good, and is often more effectual than atropia. Another thing we must not lose sight of in giving atropia, is the enormous doses that a child can bear; a child may be given much larger doses of atropia in proportion to its age, than the adult, without producing a poisonous effect. I believe we often give too little atropia in treating children for incontinence of urine; to a child two years of age I have given $\frac{1}{2}$ grain at night without bad results. This is a larger dose than is usually given to the adult.

DR. P. F. BARBOUR: The subject under discussion is especially interesting to me, as I have seen a great deal of incontinence of urine in my clinical experience, and in private practice also. Like the gentlemen who have already spoken I think atropia is probably the best remedy in these cases. The first thing to do in the case is to ascertain the cause of the incontinence, and this very frequently is the most difficult part of the treatment. Dr. Satterwhite has mentioned most of the causes that are believed to be factors in producing incontinence. In my experience phimosis has been the cause of more cases of incontinence of urine than any other one condition. I have found in some cases where there was only partial phimosis, the inability to retract the prepuce completely set up a sufficient nervous irritation to produce this trouble at night. In fact I have had one or two cases where I failed to produce a perfect retraction on the prepuce and atropia had no effect; after I had secured perfect retraction, combined with atropia, the child rapidly improved. Of course, cystitis, irritation about the bowels, rectum, or in fact any part of the gastro-intestinal canal, or a reflex from any point in the whole system, is liable to produce incontinence of urine. The doses of atropia recommended by the essayist are not too large by any means. Children can bear two or three times as much of this drug in proportion to their age, as an adult, and I have usually given very large doses even at the beginning of the treatment. I have prescribed for instance in solution one grain of atropia to an ounce of water, giving at a dose as many drops as the child is years old though I rarely exceed five drops as an initial dose. Cantharides is indicated in

some of these cases, where there is atony of the sphincter muscles of the neck of the bladder. When it is not due to lack of nervous control but to atony of the muscles, as Dr. Irwin has said, the Faradic current is an excellent treatment. The action of belladonna I have not found so reliable as atropia.

DR. P. GUNTERMAN: I agree with Dr. Satterwhite as to the necessity of looking into the condition of the general health, and that this must be brought up to the normal standard before atropia or any other remedy directed to the relief of enuresis can be of any benefit. I do not agree with Dr. Irwin that the majority of the children who suffer from incontinence of urine are either of strumous diathesis, nervous temperament or scrofulous habit. I have treated quite a number of children for this trouble, and the patients I have had, particularly the last five treated during the past year, were of very healthy parentage, were themselves apparently very healthy children, with perhaps one exception, and certainly had no strumous or scrofulous taint. These five cases made a very prompt recovery under the atropia treatment. My mode of treatment was the same as that of the originator of the method, viz.: I gave one drop for every year of the patient's age of the solution of one grain of atropia to an ounce of distilled water, which in the oldest child made $\frac{1}{2}$ grain, and in the youngest $\frac{1}{17}$ grain to begin with. This was continued twice per day—in the afternoon at 4 o'clock and at 10 o'clock at night. This treatment was kept up as a rule about six weeks. One case, a boy seven years old, was relieved in four weeks, then the mother thought as the boy could not see very well and had some general constitutional disturbance, that the medicine had been continued long enough and quit. In about two weeks the treatment was again instituted and continued another four weeks when the boy was entirely cured. I had another little patient four years old, rather weak and delicate. He wet the bed at night—in fact was always wet. I gave him a constitutional treatment consisting of tincture of iron and corrected his urine. I gave him cantharadine—one-fiftieth of a grain three times a day—and before I knew it he had as bad a case of cystitis as I ever saw. It seemed as if he passed the whole of the mucous mem-

brane of the bladder within twenty-four hours. The little fellow recovered from that, but the incontinence was not relieved until I put him on atropia, starting with four drops ($\frac{1}{16}$ part of a grain) twice per day. He made a very steady improvement, kept on improving and finally became entirely well and is well now.

DR. T. P. SATTERWHITE: I think it is necessary to give atropia oftener than Dr. Guntermann states; it is eliminated very rapidly and twice per day is not sufficient. In all my cases I gave it three times a day and kept up the remedy at least a week or ten days after apparent cure. I did not withdraw it at once, but decreased the dose gradually.

ACCIDENT FROM THE USE OF BROMOFORM IN PERTUSSIS.

DR. P. GUNTERMANN: I wish to speak of a peculiar accident I had last Friday evening. I had prescribed for three children in the same family; one aet. $1\frac{1}{2}$ years, one aet. three years and one not quite five; mixture of bromoform two drams to four ounces of syrup of tolu to be given, 60 drops to the oldest, 30 drops to the second, and 10 drops to the youngest child. All were suffering from pertussis. They took the medicine and I was to be advised how it acted when the supply was exhausted, or sooner if it did not act at all. I learned how it acted when the last dose was given. I was called at 7 o'clock in the evening to come at once, as one of the children was dying. When I reached the house I found that the child was perfectly dead drunk. I thought at first that the child had had a spasm and was simply limp from its effects; there was nothing to indicate any serious danger, and the child had gone to sleep. I told the family to let the child sleep, and if they saw anything out of the way to let me know. A half an hour later I was called again and found the second child unconscious and perfectly limber, having no control of the muscles whatsoever. In another half hour the oldest child was taken in the same way. The pulse of each was good, they were quiet, breathing was natural, pupils looked all right, so I inquired whether they had anything about the house that might have been taken by mistake. Investigation revealed that the only

medicine they had taken was the bromoform and syrup of tolu which I had prescribed, which I knew could do them no harm. I found they had taken the last of the medicine that evening, and the mother said: "Doctor, there is something peculiar about that medicine; when you do not shake it there is always a lot of oil in the bottom." I knew then what the trouble was. They had not shaken the medicine and had taken pure bromoform, the last dose left in the bottle.

ARTRESIA VAGINÆ.

DR. W. H. WATHEM: Four weeks ago I operated upon a married lady from Louisiana for atresia vaginæ of the upper half, the lower half being normal. By an examination through the rectum and bladder it was impossible to decide positively whether there was congenital absence of the upper part of the vagina, or whether there was simple atresia resulting from inflammation, with atrophy and thinning of the walls. The uterus was normal in size, and the ovaries and tubes apparently normal. She was perfectly developed in other respects, a bright, intelligent and accomplished woman. Her menstrual periods had been regular, though very painful and prolonged. I found fistulous opening through which I could introduce only the smallest probe, entering the vagina on the left side and through this menstrual discharge came away. A small uterine dilator was forced into this opening, and the blades spread making an opening large enough to introduce my finger. With the handle of a scalpel the united surfaces at the upper part of the vagina were divided, and then with my finger I began dissecting above, and discovered that I was not separating an adherent vagina but was separating through connective tissue uniting the bladder with the rectum, showing that there was congenital absence of the upper half of the vagina. I finally reached the uterus and continued dissecting through the connective tissue until I had opened into Douglas' pouch. This allowed the uterus to come lower in the pelvis between the rectum and bladder, and bring the os uteri near the vaginal tissue proper. There was but little hemorrhage, and the cavity was tamponed gently with iodoform gauze. She had no untoward symptoms; no eleva-

tion of temperature nor acceleration of pulse; she suffered no pain—absolutely in a normal condition; the dressings were changed every two days; the peritoneal wound healed completely, and the mouth of the uterus was down nearly to the vagina. She menstruated while at the Infirmary and had no pain; the flow lasted about half as long as had been customary before the operation. She left the Infirmary two weeks after the operation with the cervix firmly fixed, the os large enough to allow the introduction of end of my finger, and she was in every way feeling perfectly well. Had I not opened the peritoneal cavity the uterus would probably not have come down lower than it was, and the separated space between the bladder and rectum would have retracted until possibly there would have finally been but a small fistulous opening and the woman would have suffered with painful menstruation as in the past. But by separating into the peritoneal cavity allowing the uterus to come down it will do away permanently with any trouble in menstruation. But there is a question about which I have serious doubts in this case, viz: the ability of this woman to give birth to a child through the vagina, because the uterus is not attached to the vagina; it is attached only in front to the bladder, behind to the rectum, and at the sides to the connective tissue of the pelvis and the broad ligaments. I believe that were she to go into labor at term there would be danger of serious injury; the uterus when contracting and pressing the child outward would, because of feeble vaginal attachments, cause the cervix to become torn from the pelvic structures and allow the child to pass into the peritoneal cavity necessitating an abdominal section. With this belief I advised against her becoming pregnant, and told her husband the dangers such a condition might entail.

I have had two cases of total congenital absence of the vagina—one in a lady living in the southern part of the state, who is otherwise perfectly developed, breasts, vulva, etc., and having all the feelings of a perfect woman in relation to the opposite sex, neither vagina or uterus could be detected, although it is claimed by some authorities that there is always some of the uterus present in these cases, but it is very small. Her ova-

ries and tubes could be distinctly outlined.

The other case is a little girl of a prominent family in this city, where there is entire congenital absence of the vagina with the presence of the ovaries and a very diminutive uterus. As the child is but four years of age, and as the uterus is at this age very small, when she develops into womanhood it may develop sufficiently for menstruation which will have no outlet.

I report these cases because they are not of usual occurrence, many busy physicians may practice for many years and not see such a case. I have seen but these three cases. It is not a very uncommon thing to see acquired atresia of vagina resulting from specific infection, from infection following childbirth, from infection of measles, small-pox or even diphtheria, and one reason why I thought the last case upon whom I operated was acquired adherent vagina was because her husband told me that when she was eight years old she suffered with a severe attack of diphtheria, and had some vaginal discharge. The vagina, uterus and tubes are developed from the ducts of the Müller, from above downward. We may have absence of the upper, middle or lower part of the vagina, but we very seldom have absence of the middle of the vagina with the upper and lower parts existing, and as a rule we have either entire absence of the vagina, or only the upper and lower part. The vagina may be absent and the uterus fully developed, or the vagina may be absent and the uterus apparently absent. With entire absence of the vagina, with the presence of the uterus and ovaries well developed, the better treatment would be to remove both the uterus and the ovaries, as they could be of no use to the woman and might cause her a great deal of pain and suffering or even death. If you were to attempt to establish vagina in a case of this kind, you would have great difficulty in reaching the uterus and opening the parts well without danger of injuring the rectum and bladder, especially so if the union of these two organs happened to be such as to require any instrument except the fingers in separating them. When an opening is made, contraction will gradually take place until you will have practically nothing better than a fistulous opening. In acquired atresia, of course, we may by operation in many instances re-establish the vagina.

CURRENT LITERATURE REVIEWED.

IN CHARGE OF ELLISTON J. MORRIS, M. D., AND SAMUEL M. WILSON, M. D.

THE ANNALS OF GYNÆCOLOGY AND PÆDIATRY
for July. Dr. Thomas D. Dunn reports

A Probable Case of Auto-Infection,

with some remarks on the bacteriological origin of puerperal sepsis. In the case reported by the author there was no laceration of the birth canal; the placenta was delivered spontaneously and was apparently entire. The patient complained of great weakness, pain and uterine soreness out of all proportion to the severity of the labor. The uterus did not contract firmly. Eleven hours after delivery the author was summoned, and found a temperature of 104° 6 F., pulse 112, great restlessness and considerable pain. The uterus was large, but no blood clots had passed. The patient then developed a typical case of septic infection and died on the tenth day of the disease. On the sixth day she complained of pain in several joints, and on the seventh both wrists, right elbow and knee were painful to motion and pressure, red, and on the eighth day large fluctuating abscesses were present. There were no rigors, but the temperature and pulse continued high till death. Uterine soreness ceased on the second day, but at no time were there firm contractions. On the sixth day the woman was etherized and the uterus carefully explored and curetted, with the removal of some debris—either fragments of placenta or a sloughing ulcer—the latter sensation being given to the finger.

The child was not nursed, owing to the severe illness of the mother. On the first day it was exceedingly fretful; on the second day it refused nourishment and had high fever, temperature 103° F. On the third day the right elbow was swollen and red. Septic arthritis rapidly developed, and on the fourth day left elbow, both wrists, ankles, and left knee were involved. Several abscesses were opened and discharged a sero sanguineous pus. The child died on the sixth day.

No post mortem was allowed to be held on the patient or could any bacteriological study be made of the lochial discharges.

The attendant being called away from the city, a visit was made by his brother five hours before the patient was delivered. The brother had come directly from a case of diphtheria, but had washed his hands with antiseptic soap, and unusual vigilance was used to sterilize the birth canal both before and after delivery. It was carefully examined by speculum, but at no time could evidence of diphtheritic deposit be found. The author is inclined to consider the case one of auto-infection on account of the condition of the child; as he thinks it impossible that the child could have become infected if any poison had been placed in the birth canal five hours before delivery.

Dr. Rufus B. Hall contributes some remarks on

Total Extirpation of the Fibroid Uterus,

describing illustrative cases. The author prefers total extirpation to Baer's method of extirpating the tumor and body of the uterus, leaving the cervix. He is opposed to the extra-peritoneal method by means of the nœud. He believes that with the present rate of low mortality following total extirpation of the fibroid uterus, we should not hesitate to advise all patients who are subjects of fibroid tumor to submit to the operation at once if their life is endangered or health destroyed either from the tumor or complications arising from it.

This issue also contains the abstract of a paper by Dr. Edward P. Davis, read before the American Gynecological Society, on

Fatal Nausea and Vomiting of Pregnancy.

with the report of two cases. The conclusions at which the author arrives from his experience are: Nausea and vomiting of pregnancy are dangerous in proportion as they induce pernicious anæmia. Such a condition of danger is to be recognized by studying these cases in the light thrown upon them by the pathology of anæmia. While it is possible that sudden and radical improvement may occur in cases where a functional neurosis is the predominant factor, only when pernicious anæmia is once established delay is dangerous, no matter at what period of pregnancy the patient is seen. While it is true that raising and sustaining an impacted uterus will relieve many milder examples of this affection, cases in which danger threatens should be set by prompt dilatation and emptying of the pregnant uterus, which is to be done by modern surgical methods.

Dr. Thomas Cunningham contributes an article on

Malignant Growths of the Uterus,

dwelling on the importance of early diagnosis in these cases. As there are very few symptoms in the early history of cancers of the sexual organs, he thinks it would be well if the profession made it a rule to examine all female patients vaginally whenever they present themselves for treatment about the time of life when important changes are going on, and which statistics show are favorable to the development of malignant growths. Leucorrhœal discharges of whatever character and at all times should be carefully looked into and the cause removed, if possible. Shooting pains and dull aches in the sacral or hypogastric regions ought not to be overlooked, for sometimes these will be the only signs that are present.

In the "Department of Pædiatry," Dr. E. P. Bernardy reports

One Hundred and Sixty Cases of Measles in Private Practice.

Whooping cough occurred twenty-three times in the series. The author therefore thinks that there must be some relation other than accidental between the two diseases. He considers the use of bromoform in this complication unsafe and useless. Belladonna, pushed to its physiological effects, acted nicely in a number of these cases; when it failed, which it often did, pectate of ammonia was employed with perfect success in almost every case. In the series there were but three deaths, due to the complications present. He is satisfied that his success was due to his insisting on the minutiae of nursing and treatment being carried out. His treatment of the measles proper was simple. When complications arose, he then used whatever medicine was necessary freely; stimulants were given sometimes in large doses without hesitation when the necessity demanded.

The remaining papers in this issue are: "Extirpation of the Uterus in Diseases of the Adnexa," by J. M. Baldy, M. D. This paper was published in *The American Journal of Obstetrics* for July and has been reviewed in connection with that journal:

"Hysterectomy in Bilateral Diseases of the Appendages," by Florian Krug, M. D. (This paper appeared in *The American Journal of the Medical Sciences* for June. A review will be found in *THE MEDICAL AND SURGICAL REPORTER* for June 23d, page 898.

"The Treatment of Face Presentation," by Edward Reynolds, M. D., and "Symphysiotomy versus the Induction of Premature Labor," by Charles P. Noble, M. D., both appeared in *The American Journal of Obstetrics* for July and have been noticed in that connection.

THE AMERICAN JOURNAL OF THE MEDICAL SCIENCES

for August. Dr. Mathew D. Mann contributes a paper on

Inflammation of the Ureters in the Female.

The author is convinced that ureteritis is common, that it is often overlooked, and that it is mistaken for other conditions in no way connected with it except in location. By palpation the ureters can be recognized, especially when enlarged by disease, as two cords, running from a point a little in front of the uterus and a little to one side of the median line, directed at first towards the sides of the pelvis, and then curving somewhat sharply backward until they go beyond our reach near the spine of the ischium. In front of the uterus their ends are separated by an inch or a little more of space.

The causes of inflammation the author enumerates as follows:

1. Injuries during childbirth.
2. Previous disease of the bladder.
3. Gonorrhœa.
4. Suppuration of the pelvis of the kidney.

5. Pelvic disease, such as pelvic peritonitis, cellulitis, and tumors.

6. Abnormal conditions of the urine.

7. Tuberculosis.

The ureters may be injured by pressure of the child's head or the blade of the forceps, the pendulum movement of the forceps being particularly likely to produce trouble. Especially is it likely to occur if the head pushes down an undilated cervix and the bladder with it. The author has noticed an irritation lasting a long time, evidently started by the pressure of the child's head. Gonorrhœa may extend from the bladder to the ureters though the author acknowledges that gonorrhœal cystitis is rare in women. Yet he states that he has seen several cases in which this occurred and he has no doubt that many of the failures to obtain relief from pain after cellotomy for pus tubes are due to coincident but unrecognized gonorrhœal ureteritis.

The author has very little faith in the extension of inflammation from contiguous structure, except along the surfaces. He does not believe that ureteritis ever follows an inflammatory action in the tubes, ovaries, pelvic peritoneum or parametrium by direct extension. If the two coexist, he would look either for a common cause in a gonorrhœal infection, or the ureteritis may be due to the inflammatory exudation causing pressure and obstruction. Still less is he able to believe that an anteflexed and fundus can by pressure, even for a very long time, and "under conditions favoring the progress of the disease," induce a ureteritis, pyelitis, and pyelonephritis. He further protests against the doctrine that vesical irritability may be due to the pressure of an anteverted or anteflexed uterus. In such conditions he has never failed to find some other cause for the vesical irritability, usually in an abnormal condition of the urine.

The condition spoken of "renal insufficiency," the author believes is often a result of stimulation of the inhibitory influence of the nerve centers, due to peripheral irritation in the sexual organs. It is often found associated with ureteritis and, the author is fully persuaded, often stands in the relation of cause and effect.

That condition of the urine which is characteristic of the condition known as lithæmia is, in the author's opinion, the most common cause of the ureteritis.

In regard to the pathological condition, the author states that usually both ureters are affected; but often one side—usually the left—is much more seriously involved than the other.

As to the symptoms, the author states that the most common symptom is frequent micturition, which may even become continuous. In only a few cases out of those he has met has this symptom been absent. The next symptom of importance is pain over the ureters—one or both—the left side being more commonly affected than the right. This pain is described as burning or boring, and is nearly constant, but is almost always greatly aggravated as the menses approach, even becom-

ing agonizing during the flow. One curious symptom which the author has noticed as frequently existing in cases associated with renal insufficiency is an absolute distaste for water.

The diagnosis is to be made, first by the symptoms; secondly, by the physical examination, and thirdly, by an examination of the urine. The palpation of the uterus in the pelvis is done as follows: The finger is carried along the anterior vaginal wall upwards and outwards near the brim of the pelvis to one side of the uterus. It is then passed forward, stroking the pelvic wall and carefully feeling for a cord-like body under it. Sometimes a bimanual examination will greatly aid in discovering the ureters. In every case that the author has seen, tenderness on pressure was present, and sometimes to an extreme degree. A feeling of a desire to urinate is often complained of on touching the ureters. By tracing the course of the ureters carefully with the finger tips, disease of the bladder and urethra may be excluded. Should bladder tenderness co exist it will be hard to distinguish the ureteritic disease unless the ureters are enlarged, or at least distinctly palpable.

The examination of the urine is an absolute necessity and no examination can be considered complete unless it embraces an estimation of the amount of urine passed in the twenty-four hours, as well as a careful chemical and microscopical examination. The urine will often be scanty; always acid in reaction; often hyperacid, unless cystitis coexists, and often of low specific gravity, 1010 to 1015. The sediment will consist of urates, uric acid, calcic oxalate, often pus, and a little epithelium. All attempts to locate the seat of the disease by the presence of peculiar types of epithelial cells will fail.

In regard to the prognosis, the author states that if the trouble has not lasted very long, and the ureters are not much enlarged or thickened, the prognosis is good, though the time necessary for a cure will be considerable.

As to treatment, besides general out door exercise and measure to promote the general health, there should be a careful regulation of the diet and the urine kept as unirritating as possible. In many cases sugar and starches seem to be poorly digested and thus do harm and are to be avoided. Alcoholics, especially wine and beer, must be given up. In cases where there is renal insufficiency the author advocates the use of the hot air bath or a Turkish bath. Massage is also of great use in these cases and can be used immediately after the bath. The use of alkalies is of the utmost importance, and they should be used long and persistently, in sufficient quantity to keep the urine alkaline or at least neutral. Constipation is to be avoided. If anæmia exists, the use of iron and arsenic will be beneficial. The author has seen good results follow an exclusively milk diet. In regard to remedies that have a local action he speaks in praise of sandalwood.

The direct treatment by means of catheterization of the ureters, advocated by Kelly and the surgical treatment of the disease are also discussed in the paper.

Dr. James D. Heard describes in a paper entitled,

Certain Cases of Heterotopia of White Matter Occurring in the Human Nodula Oblongata,

comes to the conclusion that the central nervous system possesses, like other organs, a tendency towards occasional misplacement of its elements. The most frequent and fairly constant histological anomaly appears to be the presence of a column of white nerve fibres arising at the level of decussation of the pyramids, and thence proceeding upwards, occupying a position internal to the substantia gelatinosa. The fibres of this column may take origin from the lateral or from the posterior column. In certain instances these fibres have been traced above into the corpus restiforme, but this termination has seemed improbable in other cases in which the fibres have apparently extended to a much higher point.

Dr. W. Gilman Thompson contributes "Notes on the Observation of Malarial Organism in Connection with Enteric Fever," and gives as his opinion that while it is unwise to accept the term typho-malarial fever as indicating a third form of disease, which is neither typhoid fever nor malarial fever, it cannot be denied that the two latter diseases may co-exist.

The other papers in this issue are: "The Isolated Type of Friedrich's Disease," by H. J. Mackay, M. B., C. M., Edinburgh. "A Study of One Hundred and Thirty-eight Cases of Pott's Paralysis," by J. H. Huddleston, A. M., M. D. "A Clinical and Experimental Study of Uræmia," by William E. Hughes, M. D., Ph. D., and William S. Carter, M. D. (Concluded in next issue.) "Round-Celled Sarcoma of the Anterior Mediastinum; Extensive Metastasis, including the Brain, both Choroid Coats, Oculo-Motor and Optic Nerves, and External Ocular Muscles," by Arthur V. Meigs, M. D., and G. E. DeSchweinitz, M. D.

Malakin.

F. Merkel (*Munch. med. Woch.*) observes that this drug has been recommended as an antipyretic, antirheumatic, and antineuralgic. It is a salicylic derivative and contains about 50 per cent. of salicylaldehyde; thus 4 g. corresponds to a little more than 2 g. salicylic acid. The author has tried malakin in 18 cases, 15 of acute rheumatism, 2 of enteric fever, and 1 of neuralgic pains in typhlitis. Its action is very mild, and no unpleasant bye-effects are noted; at most the profuse perspirations generally following its administration might be looked upon as unpleasant. Perhaps the quality of the pulse suffered occasionally. The drug has a distinct antipyretic effect, but this is not permanent. As an antirheumatic it can produce a decided improvement in the articular manifestations. In 15 cases of acute rheumatism a favorable effect was noted in nine, and in two of these other remedies had been used without benefit. The author looks upon malakin as an addition to our resources where other remedies fail. Whether it can be given like the salicylates in larger and more frequent doses remains to be shown.

PERISCOPE.

IN CHARGE OF WM. E. PARKE, A.M., M. D.

GYNECOLOGY.

Small Cystic Degeneration of the Ovary.

Francis Foerster, in the *American Journal of Obstetrics*, 1894, presents the results of comparative microscopical studies of the ovaries as follows:

1. Small cysts are of common occurrence, not only in human ovaries, but also in those of the sow, ewe, and the cow.

2. In accord with the researches of Nagel, I am convinced that the small cysts are originally Graafian follicles.

3. In a process not exactly pathological, the stratified epithelial lining of the Graafian follicle undergoes peculiar changes tending to its disappearance.

4. The epithelium first breaks up into an indifferent or medullary tissue, and from this arises myxomatous, vascularized connective tissue.

5. The type of the newly-formed myxomatous tissue varies in different animals. It may be medullary myxomatous lymph tissue, or fully developed myxomatous tissue with a well-marked basis substance.

6. The newly-formed myxomatous tissue is always scantily supplied with blood vessels, which probably grow into it from without.

7. The myxomatous lining of the cyst-wall is always well defined towards the outer fibrous coat, the original capsule of the Graafian follicle.

8. The ovule is present at the beginning of the formation of a small cyst; later it probably perishes, owing to the changed environments.

MEDICINE.

A New Method of Diagnosis and Prognosis of Chronic Nephritis.

Dr. Basset, of Toulouse, in a paper read at the International Medical Congress held in Rome, said that as long ago as 1860 he had read a paper before the Medico-Chirurgical Society of Toulouse, on "The Non-Elimination of Odorous Substances by the Kidney, as Bearing Upon the Diagnosis and Prognosis of Nephritis." Since that time he had found a new and more precise method of arriving at this end, namely the employment of iodides and of the salts of quinine, the elimination of which by the kidneys is so rapid in the normal condition, and the comparative dosage of which may be made so exactly. The following were the conclusions of the communication:

1. The elimination of odorous substances by the kidneys is retarded, diminished or abolished in chronic nephritis.

2. This examination of the odor of the urine is an easy and rapid method of ascertaining

the functional condition of the kidneys and of determining their anatomical integrity or the reverse, and thus of arriving at a diagnosis and prognosis of Bright's disease.

The salts of certain substances which are ordinarily eliminated in great part and rapidly by the kidneys, such as the iodides, the bromides, the salts of quinine and the turpentine, which form with nitric acid a precipitate soluble in ether and alcohol, are very useful as furnishing in a precise manner, by the retardation or diminution of their elimination in the urine, data upon which to base a diagnosis or prognosis of the various degrees of chronic nephritis.—*Maryland Medical Journal*.

Treatment of Renal Disease.

Dickinson (*The Lancet*), expresses the following views as to the treatment of nephritis:

Acute nephritis.—The disease has a tendency to recover spontaneously, qualified especially in scarlatinal nephritis by a tendency to fibrosis. Warmth in bed and a liquid diet are essential to recovery. The food should be milk, animal broths, and a moderate amount of farinaceous food. Water and aqueous drinks should be given freely. After a calomel purge it generally suffices to give a saline. Digitalis is to be given only if there is dropsy or if the urine be very scanty. Even though the urine contain blood no drug should be taken to check the flow, as it is rather beneficial than otherwise. The usual diuretics are useless and even harmful, cantharides being especially harmful.

Chronic albuminuria may continue almost indefinitely without much apparent injury to the patient. The heart will hypertrophy as a salutary adjustment, and the dropsy may be indefinitely postponed. In a quiescent case temperance in diet is much to be preferred to austerity. Farinaceous and vegetable food may be allowed without restriction, milk in abundance, watery drinks freely, and the less alcohol the better. A purely milk diet is not advantages. When urine is scant and of low specific gravity, large amounts of liquor should be taken. It is often necessary to save life. In movable cases it is well to have the patient in a warm climate with a low relative humidity. So far as medicines are concerned it is a good practice to give a ferruginous laxative combined with a small dose of strychnine. The normal termination of the granular kidney is by uremia. Sweating should be enforced where the uremia is indicated by headache, vomiting, etc. A Turkish bath every ten days may long ward off what would otherwise happen, or a hot air bath by a lamp under a sheet may be used. If the patient be weak, it is much better to give a partial hot-air bath than to envelop the whole body. The legs may be alone enveloped in the sheet,

and this will be most invaluable in many instances.

Treatment of the Dropsy.—Nature's cure is hypertrophy of the heart. Measures which lessen the contents of the vessels and increase the force of the heart are indicated. Digitalis is almost invariably indicated. Most diuretics are useless; some are harmful, as cantharides. Vegetable salts of potash may be used. Hydragogue purgatives have their use. The abdomen may be tapped when there is excessive ascites, but the legs must never be tapped. Renal asthma admits of relief with alcohols, ethers and amyl nitrite.—*Univ. Med. Magazine.*

Nucleo-Albuminuria.

Pichler and Vogt (*Centralbl. f. inn. Med.*), observe that a more exact examination has shown that proteid substances in the urine do not only consist of serum, albumen, and globulin; nucleo-albumen is characterized by its solubility in acetic acid, its precipitation by magnesic sulphate, and by the separation on boiling with dilute mineral acids of no reducing substance. It must be distinguished from globulin and mucin. Nucleo-albuminuria seems to appear when any damage is done to tissue cells, or more seldom when secretions holding nucleo-albumen, such as bile, get into the blood. In experiments on dogs, the authors show that the injection of casein produces nucleo-albuminuria. The simplest way of damaging protoplasm is to limit the supply of oxygen, and in these cases lactic acid, etc., appears in the urine. The authors demonstrate by their experiments on animals that temporary obstruction of the femoral artery will give rise to nucleo-albuminuria. In four experiments on dogs in which the renal artery was temporarily obstructed nucleo-albumen appeared. Serum-albumen was absent in one case, and only present for a short time in the others. The only changes found in the kidney were fat in the cells, and some alteration in the protoplasm belonging to the cells of the convoluted tubes. Experiments thus show that the renal tissue may be the source of nucleo-albuminuria, and this source must be excluded before others are thought of. The so-called cyclical albuminuria is often nucleo-albuminuria. In some cases of temporary compression of the chest or limiting the blood supply to a limb in young people albuminuria may be produced, but nucleo-albumen is more the exception here than the rule. These researches show further reasons for separating nucleo-albumen from ordinary albumen. The authors' investigations in the case of disease yielded similar results to those of Obermayer.

Treatment of Atonic Gastric Dilatation.

Wegele (*Munch. med. Woch.*) deals with the severer forms of this disease, and not with such as accompany any gastric affection lasting over any considerable time. For the practical distinction of mild from severe cases, the test breakfast is useful; in marked cases remains of food are found in the water used for washing out the stomach on the following

morning, whereas in mild cases the stomach is able to deal with such moderate demands. Pronounced atonic dilatation is not, in the author's opinion, such a rare event as is sometimes represented. At first the dry diet was employed, and for slighter cases it sufficed; but a rigorous carrying out of this regimen was often of disadvantage. Washing out the stomach proved a great advance, as in this wash the stomach was freed of every acid and fermenting contents. Here, however, a considerable amount of nourishment is withdrawn, and the patient's nutrition and weight may suffer. Rectal alimentation must in addition be had recourse to; either water alone or the desirable food stuffs may be thus used. The amount of urine passed is a practical measure of the gastric insufficiency. By a strict dry diet and supplying the necessary water by the rectum, the patients condition may be greatly improved. Clysters containing grape sugar are apt to ferment and to produce diarrhoea, and the same is true of those containing peptone frequently repeated. The diet must be suited to the condition of the gastric chemistry. If hyperacidity is present large doses of alkalies are indicated. Washing out the stomach is, according to the author, best done in the morning. Raising the foot of the bed is said to be useful in helping to empty the pyloric antrum. If fermentation is present, harmless antiseptics should be added to the water, and salicylic acid, creosote, bismuth, salicylate given internally. If the abdominal walls are lax, a belt should be used. The author says that the prognosis is considerably improved by the use of the dry diet, and supplying food by the rectum.

Dulcin.

Kobert (*Centralbl. f. inn. Med.*) says that pure saccharin is described by many as not being really sweet. Dulcin, discovered by Berlinerblau, has a pure sweet taste, and exceeds saccharin in sweetness some 200 to 250 times. In structure it is an aromatic urea derivative—paraphenetol carbamide—and is allied to phenacetin. It is soluble in 800 parts of water at 15° C., in 50 of hot water, and in 25 to 97 per cent. of alcohol. Experimentally dulcin has been shown to be harmless to rabbits, but in dogs, which are more susceptible to its action, the evidence is somewhat conflicting. From his own experiments on cats, the author concludes that doses corresponding to such as would be used in man are harmless; with abnormally large doses the cats became ill, and eventually died with cerebral symptoms. In diabetes it must be used in relatively small doses. Ewald has given it in doses up 1.5 g. in the day. The author concludes that dulcin in reasonable doses is, as far as we know at present, harmless, and is an advance upon the use of saccharin, owing to its sweeter taste. It does not bring about any decomposition of the blood.

Ether Spray in Coccygodynia.

Dr. E. McFarlan, New York, reports in *The American Therapist* an obstinate case of coccygodynia completely relieved by local ap-

plication of the ether spray. The first application was made over the entire sacrum and coccyx and continued for about five minutes, at first seemingly intensifying the pain, but this was followed by relief lasting through the day and night. The second treatment the next morning produced almost immediate relief. After the third application, the victory was complete. The daily use of the ether was continued for one week and now, after many months, there has been no return of the disease.

Throat Conditions Observed in Gouty Subjects.

S. Solis-Cohen (*Phil. Med. News.*)—Inflammation is not necessarily present in gouty sore throat. In the author's experience, the most prominent symptoms have been of a sensory nature, viz: pains and perversion of sensation over limited areas which, to the eye present no alteration whatever. The site most frequently complained of is the left pharyngeal angle just behind the free border of the soft palate; other areas are the general region of the epiglottis and base of the tongue. The pain is described as burning, stinging, pressing, etc. With most patients, cocaine applied locally, will for a time abate these paræsthesiæ. Where it does not, the deeper fibrous structures of the pharynx are probably involved.

Occasionally, during a gouty exacerbation, visible alterations of structure are manifested over the painful areas. The vessels dilate, the follicles enlarge and the mucous membrane may take on a dusky hue, or become of a "corn-beef" color.

Where the gouty manifestations appear in the larynx, the arytenoid eminences seem to be a favorite seat of morbid sensation. The crico-arytenoid joint may, as in rheumatism be the point on which the systemic state focuses. The natural activity of this articulation causes pain on respiration as well as in attempted phonation.

Local treatment is palliative only. Cohen prefers the glycerol of tannin applied by cotton wad, or the spray of sulpho-carbolate of zinc—5 gr. to rosewater 1 oz. Applications of coca, fluid extract or infusion, may give relief where cocaine is badly borne or is for any reason contra-indicated. Aconitine oleate (2 per cent. in oleic acid), menthol in liquid petrolatum, bromoform, are all useful. In the more chronic cases, iodine with potassic iodide in glycerin, and carbolic acid, forms a valuable topical agent.

Thorough cleansing with a alkaline aromatic spray is a necessary prelude to all applications. For systemic treatment the usual measures are adopted against the uric acid diathesis. Strontium bromide has given the author much satisfaction.—*A. M. S. Bull.*

Special Exercise to Correct and Prevent Constipation.

Friction, rubbing or massage over all parts of the abdomen two or three times per day by

the patient himself, or less frequently by a good magnetic operator, will help to promote vital action of the bowels. If not convenient for the patient to walk or ride for exercise, he can secure the advantage of both in large degree by the following exercise, taken in his room.

Standing with the feet well apart, to broaden your base, bend or flex the lower limbs at the knees and extend the same about twice a second, or one hundred times a minute, for several minutes at a time, three or four times a day and at the same time twist or turn the body above the hips first to the right and then to the left as far as you well can, resting the hands upon the hips or allowing them to hang by your side. At each turn of the body toward the right or left you will bend the knees about three or four times. You thus use chiefly the flexors and extensors of the thighs and the rotating muscles of the trunk. The motion of the body is meanwhile up and down, and the motion of the chest and head is alternately to the right and left. To facilitate the turning of the body, the heel of the limb opposite the one on which you rest, as the body sways from side to side, may be raised so as to allow the limb to turn upon the ball or toe of the foot. To get the best effect of this exercise, the head must be kept well up, the shoulders back and the spine erect during exercise. The bowels may generally be allowed to rise and fall with the body, but at times it is well to exercise the diaphragm by endeavoring to draw beneath it the liver and viscera of the abdomen.—*Jour. American Health Society.*

Venesection in Renal Asthma; Instant Relief; Uric Acid in the Serum.

I was hastily summoned to this patient on November 20th, 1893, in the absence of his ordinary medical attendant, and found the symptoms so urgent that I was obliged to act alone and at once. The case was that of a man, aged 52, who had been under treatment for albuminuria and dropsy for rather less than a week. I found him in a state of orthopnea, and tossing about in bed in his distress. Expiration was prolonged and accompanied with loud dry rales; the pulse was somewhat slow—the actual rate was not noted—and, as it appeared to me, of markedly, high tension.

I immediately bled the patient *pleno rivo* to 15 ounces, with the result that he could at once lie down and that all the distressing symptoms had disappeared next morning. He was afterwards in the Western Infirmary for some time, and there is reason to believe that the attack has been an acute one, and not likely to merge into chronic Bright's disease.

Having previously discovered crystals of uric acid in the serum of two cases of convulsions which I had bled, and being much interested in the important researches of Dr. Haig on uric acid in the causation of disease, especially headache, high-tension pulse, convulsions, epilepsy, etc., I forwarded a speci-

men of the blood to him in the above case, which he was so kind as to examine. He reports as follows on November 24th, 1893 :

"The specimen of blood you sent me on November 21st contained uric acid to the extent of 0.015 per cent. My experience with blood drawn during life is too small to draw any sweeping conclusions from; but the largest quantity I have found in blood of venesection was 0.03 per cent. in a case of cerebral hemorrhage, I have often found smaller amounts, 0.002 to 0.004. I should think, therefore, that 0.015 per cent. represents a distinct excess of uric acid, but that double this quantity may be found in some cases."—*Canadian Practitioner*.

Anthrax in Man.

Muller (*Deut. med. Woch.*, June 14th, and 21st, 1894,) refers to different views in connection with local treatment. It is impossible to destroy the disease by excising the site of inoculation. In guinea-pigs amputation of a limb two or three hours after the foot has been inoculated cannot save the animal. By the time the injection is ended absorption must have commenced, as is shown by the rapid proliferation of the bacilli in the tissues. The disease produced by anthrax would appear to be largely due to a toxic action. It may, however, be difficult to find bacteria in the blood; when absorbed they may be deposited in parts where the circulation is slow as in the liver, spleen, and marrow of bones. It has been shown with almost certainty that products may be isolated from anthrax cultures, which produce symptoms like those due to anthrax. Whether phagocytosis plays a part in human anthrax is undecided. The author's observations would lead to a negative conclusion. Different organs have different capabilities of dealing with anthrax. Thus, in rats the spleen seems to have chief action, but in rabbits the liver. In man enlargement of the spleen is noted early. It must be the object of treatment to get the cells at the site of inoculation to arrest the dissemination of the bacteria and to protect the cells in the whole body against the poisoning. If excision of the inoculated part cannot arrest the disease, it might be thought that the anthrax bacilli and their products might be let out by incision. The author concludes, however, that incision should not be practiced. Anthrax is one of the most virulent of the blood parasites, and by incision there is the danger of a fresh invasion of the blood in the vessels thus laid open. The products at the site of inoculation are harmful to the individual if absorbed, but they are also destructive to the anthrax bacilli *in situ*. The line of treatment recommended by the author is the following: The affected part and adjacent joint are fixed to prevent dissemination. The limb is also elevated to assist the venous return, so that more arterial blood may come to the part. Mercurial ointment is applied to prevent secondary infection. Means are adopted to improve the circulation, such as alcohol in large doses and nutritious diet. All

the cases, including severe ones, which have been thus treated in von Bramann's clinic since 1890 have recovered.—*British Medical Journal*.

The Abuse of Milk in the Treatment of Albuminuria.

Lecorche and Talamon (*Bl. f. klin. Hydrotherapie*) condemn the indiscriminate use of milk alone as the diet of those who suffer from albuminuria. They fully recognize and admit the advantages to be derived from an exclusively milk diet, but they maintain that each must be judged on its individual merits, just as with every diet or medication. They contest the view that milk of itself will provide sufficient nourishment for an adult; the rules that apply to the growing person cannot be transferred in full to the case of the fully grown. To preserve the balance of tissue change, an adult would require to take about four litres (about seven pints) of milk per diem, a quantity which, as experience shows, can rarely be taken, and then only at the risk of digestive disturbances which make the expected benefits quite illusory.

It is, therefore, going upon a wrong principle to say that every case of albuminuria ought to be sustained on a diet of milk only. Besides, the hope that by this diet albumen can be made to disappear from the urine is altogether vain, at least such is the experience of the writer's after a long and persevering research. They believe a strict "milk regime" is justifiable only when an excessive diuresis is indicated; that is, above all, in acute nephritis, and in the second place, in acute exacerbations of chronic inflammatory disease of the kidney.

It does not matter whether these exacerbations manifest themselves by hemorrhage, albuminuria or uremia. But this mode of treatment must not be carried too far; after a week or two the ordinary diet must be resumed, and the medical attendant must have recourse to other methods in his struggle with the primary disease.—*Glasgow Med. Journal*.

Incubation Period of Infectious Fevers.

The following table in *The Year Book of Treatment* for 1894 is of interest as giving the views of the Clinical Society of London on the "Incubation Period of Infectious Fevers."

Disease.	Min. No. Days.	Most usual No. Days.	Max. No. Days.
Scarlet Fever . . .	1	2	7
Diphtheria . . .	2	2	7
Influenza . . .	1	3	5
Measles . . .	4	10	14
Variola . . .	9	12	14
Enteric Fever . .	5	12	23
Varicella . . .	13	14	19
Rubeola . . .	8	18	21
Mumps . . .	12	19	25

Diseases of the Heart Muscle in Typhoid Fever, Scarlet Fever, and Diphtheria.

Romberg (*Deutsche Archiv für klinische Medizin*, Vol. xlix, parts 4 and 5). In typhoid fever the highest grades of parenchymatous degeneration of the heart-muscle are present by the end of the second week, and then disappear but slowly in the later weeks. Interstitial myocorditis begins mostly at the end of the second week. In scarlet fever interstitial myocorditis begins mostly on the fourth day, and becomes excessive in the middle of the second week. In diphtheria this degeneration begins somewhat later, at the seventh or ninth day, and is at its highest development at the end of the second or beginning of the third week. The characteristic fatty degeneration of diphtheria begins often very late. Symptoms during the fever: irregularity and smallness of the pulse and dilatation. The best sign of dilatation is the gallop rhythm. A very slow pulse is a bad prognostic sign in diphtheria. Dilatation is an important physical sign. The amount of urine is usually diminished; there is slight albuminuria with or without hyaline casts.

Myxedema Treated by Thyroid Extract.

Shattuck (*Boston Medical and Surgical Journal*), reports four cases of the disease treated with the dried extract of the thyroid gland. Three of the cases were, undoubtedly myxedema, and are examples of cures. The first case, however, presented some difficulties in diagnosis, and was not improved in the least by the treatment. In remarking upon the cases he says that in the first place we must recognize that there are differences in degree. Total inactivity of the gland is one thing, partial inactivity another. It is highly probable that the latter does not necessarily lead to the former. At all events, long periods of years may elapse before the mild passes into the fully-developed disease. Now that our attention is awakened he is convinced we shall find them pretty common. The dosage is important. In one case seven and a half grains of the extract were given at a dose. This caused terrible angenoid attacks, which required morphia to control them. Pain in the limbs and backs have been noticed as caused by the treatment. It is well to begin with very small doses,—one grain of the extract twice daily,—and gradually increase it. It is probable that the treatment will have to be continued through the life of the patient, and that larger doses will be required in cold than in hot weather.

—*University Medical Magazine*.

ARMY AND NAVY.

CHANGES IN THE U. S. ARMY FROM AUGUST 25, 1894, TO SEPTEMBER 1, 1894.

Major John D. Hall, Surgeon, upon the arrival of Major J. C. Merrill, Surgeon at Fort Sherman, Idaho, will be relieved, and report for duty at Madison Barracks, N. Y., relieving Major Daniel G. Caldwell, Surgeon.

Major Caldwell on being thus relieved, will report for duty at St. Francis Barracks, Flor-

ida, relieving Captain Jefferson R. Keen, Assistant Surgeon.

Captain Keen on being thus relieved, is ordered to Key West Barracks, Florida, for duty.

Major Louis M. Maus, Surgeon United States Army, Fort Sam Houston, Texas, granted one month leave of absence.

Leave of absence for one month, to take effect when relieved from duty at St. Francis Barracks, Florida, is granted Captain Jefferson R. Keen, Assistant Surgeon.

Captain Louis A. La Garde, Assistant Surgeon, relieved from duty as Attending Surgeon, and Examiner of Recruits, Headquarters Department of the Colorado, and ordered to Fort Logan, Colorado.

By direction of the Secretary of War the following changes in the station and duties of officers of the Medical Department are ordered:

Major W. H. Gardner, Surgeon, relieved from duty at St. Paul, Minnesota, and ordered to Fort Custer, Montana, for duty.

Major Henry McElderoy, Surgeon, relieved from duty at Omaha, Nebraska, and ordered to Fort Robinson, Nebraska, for duty.

Major George W. Adair, Surgeon, relieved from duty at Fort Robinson, Nebraska, and ordered to Washington Barracks, S. C., for duty.

Major Joseph H. Corsin, Surgeon, relieved from duty at Washington Barracks, S. C., and ordered to Fort S. A. Russell, Wyoming, for duty.

First Lieutenant Frederick P. Reynolds, Assistant Surgeon United States Army, United States Military Academy, West Point, N. Y., granted 30 days leave absence.

CHANGES IN THE U. S. MARINE HOSPITAL SERVICE, FOR THE FIVE WEEKS ENDING AUGUST 25th, 1894.

P. H. Bailhaeche, Surgeon, granted leave of absence for five days, August 3d, 1894.

J. B. Hamilton, Surgeon, granted leave of absence for five days, August 16th, 1894.

H. W. Sawtelle, Surgeon, granted leave of absence for five days, August 12th, 1894.

J. M. Gassaway, Surgeon, granted leave of absence for two days, August 11th, 1894.

W. Stonerly, Surgeon, granted leave of absence for seven days, July 28th, 1894.

Fairfax Irwin, Surgeon, to proceed to Brussels, Belgium, for special duty on July 24th, 1894, to Rotterdam, Netherlands, July 27th, 1894, to proceed to Hull, Liverpool, and other English ports on special duty August 9th, 1894.

F. W. Mead, Surgeon, granted leave of absence for thirty days, August 4th, 1894.

C. E. Banks, Past Assistant Surgeon, to proceed to Halifax, N. S., for special duty August 16th, 1894.

A. H. Glennan, Passed Assistant Surgeon. Granted leave of absence for six days August 14th, 1894.

S. D. Brooks, Passed Assistant Surgeon. To proceed to Duluth, Minn., and Superior, Wis., as Inspector, July 24th, 1894.

J. H. White, Passed Assistant Surgeon, relieved from duty at Savannah, Georgia, and

ordered to report to the Medical Official in command of the Service at New York, N. Y., for duty, August 6th, 1894.

P. M. Carrington, Passed Assistant Surgeon. To proceed to Evansville, Indiana, for duty, August 6th, 1894.

J. J. Kinyoun, Passed Assistant Surgeon. To proceed to Buda Pesth, Austria, to represent Department at International Congress of Hygiene and Demography, August 14th, 1894.

G. F. Vaughan, Passed Assistant Surgeon. Granted leave of absence for six months, August 23rd, 1894.

C. P. Wertenbaker. To report at Bureau for instructions August 4th, 1894. To proceed to Cape Charles Quarantine for temporary duty, August 7th, 1894. To proceed to Delaware Breakwater Quarantine for duty August 20th, 1894.

Assistant Surgeon, C. H. Gordner, granted leave of absence for fifteen days August 18, 1894.

Assistant Surgeon, Seaton Norman, to proceed to Baltimore, M. D., for duty August 6, 1894.

Assistant Surgeon, E. K. Sprague, to inspect unserviceable property at St. Louis, Mo., July 26, 1894.

PROMOTIONS.

Assistant Surgeon, E. R. Houghton, commissioned as Passed Assistant Surgeon, July 20, 1894.

NEWS AND MISCELLANY.

Dr. Charles P. Noble has removed to 1637 North Broad street, Philadelphia.

Dr. Charles W. Burr has removed to 1327 Spruce street, Philadelphia.

American Public Health Association.

The American Public Health Association will convene at the city of Montreal, Canada, Tuesday, September 25, 1894 at 9 o'clock a. m., and continue four days.

The regular sessions will be in Association Hall, Y. M. C. A. Building, Dominion Square, opposite the Hotel Windsor. The following topics have been selected for consideration at this meeting:

1. The pollution of Water-Supplies.
2. The Disposal of Garbage and Refuse.
3. Animal Diseases and Animal Food.
4. The Nomenclature of Diseases and Forms of Statistics.
5. Protective Inoculations in Infectious Diseases.
6. National Health Legislation.
7. The Cause and Prevention of Diphtheria.
8. Causes and Prevention of Infant Mortality.
9. The Restriction and Prevention of Tuberculosis.
10. Car Sanitation.
11. The Prevention of the Spread of Yellow Fever.

Upon all of the above subjects special committees have been appointed; therefore all papers upon these topics should be presented to the appropriate committee in season to be incorporated as a part of the report of the committee, if deemed advisable.

The Executive Committee announces the following additional subjects upon which papers are invited:

12. On the Education of the Young in the Principles of Hygiene.

13. Private Destruction of Household Garbage and Refuse.

14. Disinfection of Dwellings after Infectious Diseases.

15. Inspection of School Children with Reference to the Eyesight.

English, French and Spanish will be the official languages at this meeting. Papers may be read and discussions take place in either of these languages. All discussions will be stenographically reported for the use of the Association.

The American Public Health Association was organized in 1872, by a few public-spirited men who foresaw the need of bringing together in one body the ablest sanitarians in the country, for the purpose of inaugurating measures for the restriction and prevention of contagious and infectious diseases, and for the diffusion of sanitary knowledge among the people. Its membership has been augmented from year to year until now it constitutes the largest and strongest sanitary body in the world, and embraces in territorial extent the United States, the dominion of Canada and the republic of Mexico. Under the impetus given by its work, state and local boards of health and sanitary associations have been organized, sanitary publications increased, and hygienic knowledge widely and extensively diffused. The association has already published nineteen large and valuable volumes, increasing at the rate of one a year, and containing the papers, reports and discussions presented at the annual meetings. These volumes constitute in themselves a library upon sanitation; they are elegantly printed and bound, and are alone worth more to any person interested in hygiene than the cost of membership. Each member is entitled to the annual volume, delivered free of expense. In addition thereto, the association has published a standard work upon "Disinfection and Disinfectants," besides the Lomb Prize Essays, now so widely known to the American public.

Among its members may be found physicians, lawyers, ministers, civil and sanitary engineers, health officers, teachers, plumbers, merchants, etc.—in fact, every profession and many of the industries are represented in its list of members. The only qualifications required for membership are a good moral character, an interest in hygiene, and the endorsement of two members of the association. Cost of membership, five dollars a year. For blank applications for membership, or particulars relating to the association, address the secretary.